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(HISTORICAL)—VOLUME XVIII

HOME WATERS—Part VIII

December 1916 to April 1917

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NAVAL STAFF MONOGRAPHS (HISTORICAL)—VOLUME XVIII

HOME WATERS—Part VIII

December 1916 to April 1917

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HOME WATERS, PART VIII

December 1916 to April 1917

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The plans of German submarine cruises are diagrammatic only. The lines do not represent the actual tracks of submarines but only link up the incidents mentioned in the text.

HOME WATERS, PART VIII

December 1916 to April 1917

Introduction

This volume covers the period from December 1, 1916, to the end of April, 1917. It deals with the attempts of German armed raiders to escape into the Atlantic, giving the route followed by the *Seeadler* through the 10th C.S. and on account of the interception and sinking of one of them, the *Leopard*, on March 16. It includes the encounter off the Dutch coast on January 23, 1917, between the Harwich Force and the German 6th Flotilla, and describes three raids on Dover by German destroyers, including the action of the *Swift* and *Broke* with the 5th Half Flotilla on April 21.

Its principal subject matter, however, is the German submarine campaign and the measures taken to defeat it. These comprised in December, 1916, an elaborate system of routing for British ships, which was supplemented in February by a convoy system for the French Coal Trade. In March, convoys were extended to the Scandinavian traffic route, and by the end of April steps had been taken for the institution of a general convoy system.

It has been possible to reconstruct with a reasonable degree of accuracy the cruise of every German submarine in Home Waters. These are given for the two principal areas, the South-west Approach and Channel, for without a knowledge of the German movements it is very difficult to obtain a definite idea of the situation and of the effectiveness of the measures taken against them.

In the early stages of the submarine campaign in 1915 and 1916, when only one or two submarines were operating at a time, their cruises can be followed without difficulty. In 1917, however, when as many as six submarines were operating simultaneously close to one another, the task of identification becomes increasingly difficult, and has only been completed with the help of information by the Historical Section in Berlin.

The long narrative of attacks and sinkings presents a burdensome mass of detail, but this is difficult to avoid in the first detailed account of the German unrestricted submarine campaign.

Note on Sources

The Admiralty Telegrams for the period December, 1917, will be found in Volumes H.S. 313-413. Special Telegrams (based on intercepts) are in H.S. 645. Grand Fleet movements are in Grand Fleet Reports of Proceedings, January to September, 1917, H.S. 875.

Movements of Commodore (T) are in Commodore (T)'s Diary, H.S. 247.

Movements of British Submarines are in Volumes as follows :—

9th Flotilla (Harwich), in Commodore (S) War Records H.S.A. 272, 273; 10th Flotilla (Tees), H.S.A. 125; 11th Flotilla (Blyth), H.S.A. 126; 12th and 13th (Grand Fleet) in H.S.A. 127; Dover papers in H.S.A. 296-317.

Minelaying, British, will be found in Captain Lockhart Leith's History of Minelaying (typescript) and in H.S.A. 837-850, which cover the whole field of policy and execution.

Minesweeping information will be found in Minesweeping Statements (Fortnightly Report), H.S.A. 170B.

Submarine Campaign

Home Waters, Ships Attacked, Intelligence Division, Volumes 627-642.

The Logs of E.I. Section, I.D. (Enemy Submarines' Section), contain reports of sightings of, sinkings and attacks by, and attacks on German Submarines.

Return of Submarine Losses, C.B. 1292.

I.D. War Diaries (Enemy Intercepts) and I.D. Submarine History Sheets.

Decoy Ship Reports (Queenstown), H.S. 647, also Actions between Special Service Vessels and Enemy Submarines, C.B. 01496.

Return of Merchant Shipping (Losses), Admiralty, August 19, 1919 (British Merchant Ships Lost and Attacked).

Foreign Vessels, Sunk or Damaged, Naval Staff, January 1, 1919.

German Minefields (High Sea Fleet Submarines) in O.U. 6020A.

German Minefields (Flanders Submarines) in O.U. 6020B.

M. Branch papers referred to can be traced by reference to the M. Branch Register.

HOME WATERS, PART VIII

CHAPTER I.

RAIDERS AND THE GRAND FLEET.

1. **Transfer of Command, December 1916.**—When Admiral Sir John Jellicoe took up the post of First Sea Lord he left for Admiral Sir David Beatty a series of notes which throw an interesting light on the work of the fleet at the time.¹

He dealt first with certain routine matters affecting the movements of squadrons between Scapa and Cromarty, and the procedure of notice for steam; then touched on the work of the 2nd Cruiser Squadron, pointing out that, owing to the long nights and greater possibilities of raiders, this squadron had been placed with armed boarding steamers on a patrol north of the Faroe Islands and based on Swarbacks Minn.² He referred to the 10th Cruiser Squadron, regulated by the Vice-Admiral,³ under general direction from the Commander-in-Chief, and pointed out that the position of the Vice-Admiral, Orkney and Shetlands,⁴ was not that of a Commander-in-Chief, for he had been left purposely junior both to the Commander-in-Chief and to the Second-in-Command, so that the Commander-in-Chief might exercise a more immediate control of the patrols at Scapa.

With regard to destroyers, there was usually one flotilla at Cromarty for screening the ships there; at Aberdeen two destroyers were stationed to guard the southern channel in the Moray Firth. Eastward of the Pentland Firth two destroyers patrolled by day and in winter two more constituted the Pentland Firth Patrol. One division was always "ready," and two destroyers refitting in each flotilla were enough to ensure efficiency.

In the case of submarines, the 10th and 11th Flotillas⁵ maintained between them a patrol of three submarines constantly off Horns Reef and one submarine on the route between Faroe Islands and the Skagerrak. Three submarines of J class had to be always ready to meet the fleet at sea and were therefore not often used for the Horns Reef patrol. Admiral Jellicoe added that the Poulsen

¹ Notes for transfer of Command, undated, in H.S.A. 162. See Appendix Q.

² West coast of Shetlands.

³ Vice-Admiral Reginald G. O. Tupper.

⁴ Vice-Admiral Sir Frederick E. F. Brock, Headquarters—Longhope.

⁵ The 10th Flotilla in Tees (depôt ship, *Lucia*), 9 submarines, with destroyers *Medea* and *Termagant*; the 11th Flotilla at Blyth (depôt ship, *Titania*), 12 submarines (including J.1, J.2, J.3, J.4, J.5, J.6) with destroyers *Trident* and *Talisman*. (P. and M. December 4 1916.) Total strength 21 submarines.

wireless in G class was efficient by this time and the Horns Reef patrol was a fairly reliable outpost. The K class submarines were shortly arriving.

Enemy raiders were an object of special attention at the time and the late Commander-in-Chief referred to orders recently issued¹ to meet this emergency. (Plan 4.)

He remarked on the routine of sweeping the exit channels from the Orkneys² and recommended certain alternative channels.

For two months the German S.S. *Brandenburg* had been expected to be sailing for Germany and for three weeks the *Caroline* and two destroyers had been at Lerwick waiting for her, but she had not moved.

Finally, Admiral Jellicoe gave a brief sketch of his scheme of fleet exercises. Each month the battle squadrons went out in turn to exercise for one day eastward of the Shetlands, and the whole fleet usually went to sea for exercises once a month during the period of no moon. The destroyers were a difficult problem and during the winter they had usually to be left behind owing to bad weather when the fleet returned to its base.

2. High Sea Fleet Moving, December 6.—The *Iron Duke* hoisted Admiral Beatty's flag on November 29, and leaving Rosyth on December 2 with the new Commander-in-Chief, arrived at Scapa the next day. (See Appendix A.)

Two days later, December 5, there were indications of the High Sea Fleet moving,³ and at 6.10 p.m., December 5, the Admiralty ordered exits to be swept at daylight, as the Grand Fleet might be required to move.⁴

On December 6 at 8.44 a.m. there came in a German signal for the High Sea Fleet to proceed out, and at 9.15 a.m. orders went out for the Grand Fleet and Harwich Force to be at one hour's notice, and all submarines at Harwich, Blyth and the Tees to be ready to put to sea.

At 9.45 a.m. the Commander-in-Chief was told that the High Sea Fleet was sailing and would pass Weser Light Vessel at 9.30 a.m., but it was probably only going to exercise in the Bight.⁵ As the German 2nd Battle Squadron, three light cruisers and six flotillas, were believed to be in the Baltic there was little cause for alarm and nothing further occurred.

¹ H.F. 0022/489 of October 25 1916. C.-in-C., October 26 1916. M.09488/16.

² For the minesweeping areas (Areas V and IV) mentioned in Admiral Jellicoe's Notes, see G.F. Memo. 005 of April 30 and June 7 in H.S.A. 223.

³ At 9.09 a.m. December 5, Officer Commanding Scouting Forces ordered minesweeping flotillas to carry out Task Y on December 6, and at 4.24 p.m. the German Fleet flagship took over wireless control. I.D. Vol. 3023/14, 15.

⁴ H.S. 318/1287.

⁵ H.S. 451. Admiralty to C.-in-C.

At 1.3 p.m. the German Commander-in-Chief gave orders to proceed in; the High Sea Fleet returned to its ordinary state of readiness and Admiral Beatty, on being informed at 4.55 p.m. that that German Fleet had returned to its base, proposed that the battle cruisers and one light cruiser squadron should go to Scapa for gunnery practice on December 10; in view of the bright moon the Admiralty suggested a destroyer screen, and six battle cruisers, the 1st Light Cruiser Squadron, and 12 destroyers sailed accordingly from Rosyth on December 9; the destroyers at 7.56 p.m. were forced back by stress of weather,¹ but the others arrived at Scapa early on December 10. The battle cruisers remained nearly a fortnight in the north, carrying out full calibre firing in the Moray Firth, and the Fleet sailed with them for exercise on December 19 at 2 p.m.

The Admiralty was evidently anxious to get the battle cruisers back to Rosyth, for the Commander-in-Chief was told that "the situation was such that the fleet should not be absent from base for more than two nights and one day." The fleet returned on December 21, the 4th Battle Squadron and the 4th Light Cruiser Squadron went back to Cromarty and the battle cruisers to Rosyth, leaving the 1st Light Cruiser Squadron at Scapa to watch for the long expected raider, news of which had been received on December 10 at 5.15 p.m.

3. German Raiders in the Atlantic.—The last weeks of the year were marked by the sudden appearance in the Atlantic of raiders which sallied out to attack trade on the high seas. On the British side this led to a series of efforts to prevent the escape of raiders and to protect the Atlantic trade, recalling the earlier portion of the war, when the *Karlsruhe* and *Dresden* were still at large. The *Moewe* had already got to sea. She had left Kiel on November 22, and according to the published chart² of her cruise, shaped course to the northward from Skudesnaes (Norway) and passed well north of the Shetlands and Faroes. On November 26 at noon she was some 70 miles north of the Faroes making straight for "A" Patrol³ of the 10th Cruiser Squadron where the armed auxiliaries *Ebro* (Captain Eric Dugmore), *Artois*⁴ and *Moldavia* (Commander Adrian Smyth) were patrolling. In the evening the *Moewe* took in and partly deciphered a signal establishing a rendezvous between two of them

¹ They arrived at Scapa with the aircraft carrier *Engadine* on December 11.

² Der *Moewe*, Fahrten und Abenteuer, Korvetten Kapitän Graf Nikolaus zu Dohna-Schlodien, 1928, confirmed by Marine-Archiv. 866, December 1 1930.

³ 360° from a position 62° 30' N., 10° W. H.S.A. 114/495.

⁴ The *Artois* (late *Digby*) and *Champagne* (late *Oropesa*) were two British ships. Transferred to the French in December 1915 (manned by French crew and flying French flag). Returned to Great Britain in July 1917. Papers titled X.9416/15.

in 62° N., 11° W., at 8 a.m. on November 27¹ and giving their courses and speeds. This information probably helped her and she passed safely in the darkness of a stormy night.² (Plans 1 and 2.)

4. **The S.S. "Gamma," December 2.**—Nothing had been heard of the *Moewe*, when, on December 2 an alarm sounded in the 10th Cruiser Squadron with regard to a steamer purporting to be the Dutch S.S. *Gamma*, Amsterdam to New York, intercepted by the 10th Cruiser Squadron on December 2. It was 12.25 a.m. on a dark and squally night blowing half a gale when the *Teutonic* (Commodore John Scott Luard) stopped her going westward in 59° 56' N., 11° W. She was a ship of about 1,200 tons lying about a mile off. The *Teutonic* asked her name. She replied the *Gamma* from Holland to Falmouth, and the *Teutonic* told her to proceed. She was not flying the Kirkwall flag of the day³ but this did not arouse suspicion as instructions had come through that Dutch vessels taking the north about route were no longer to make use of Kirkwall but were to proceed direct to Falmouth.⁴

The orders laid down for their voyage from Falmouth north-about were to pass westward of Skerryvore and St. Kilda, steer for a position in 60° N., 6° W., then north true to 61°, then east true to 61° N., 3° E., thence to destination. Daily telegrams were to be sent giving names of vessels: "Holland to Falmouth" and "Falmouth to Holland,"⁵ and on November 28 the Dutch S.S. *Gamma* had been signalled as leaving Holland on November 29. The *Teutonic* did not notice that the ship was nearly 150 miles west of the Dutch route to Falmouth⁶ and she was allowed to proceed about 1.15 a.m., December 2. Half-an-hour later she was sighted by the *Avenger* (Commander Arthur L. Ashby) which was examining another ship at the time, and passed with navigation lights burning brightly. The *Avenger* gave chase and stopped her at 3.45 a.m. in 59° 36' N., 12° 42' W. Boarding was quite impracticable. She again gave her name as the *Gamma* from Amsterdam to New York, and said she had called at Kirkwall. No flag of the day was flying

¹ Der *Moewe*, p. 116. This was probably a signal from Senior Officer, 10th C.S., to *Virginian* and *Ebro* made at 4.30 p.m. "*Virginian* rendezvous *Ebro* Lat. 62° N. 12° W. 0800 27th November . . . then proceed Lat. 61° N. 14° W. to meet *Alsation*." *Alsation* Cypher Log, November 26 (Deptford 29525). Several further signals were made giving courses and speeds.

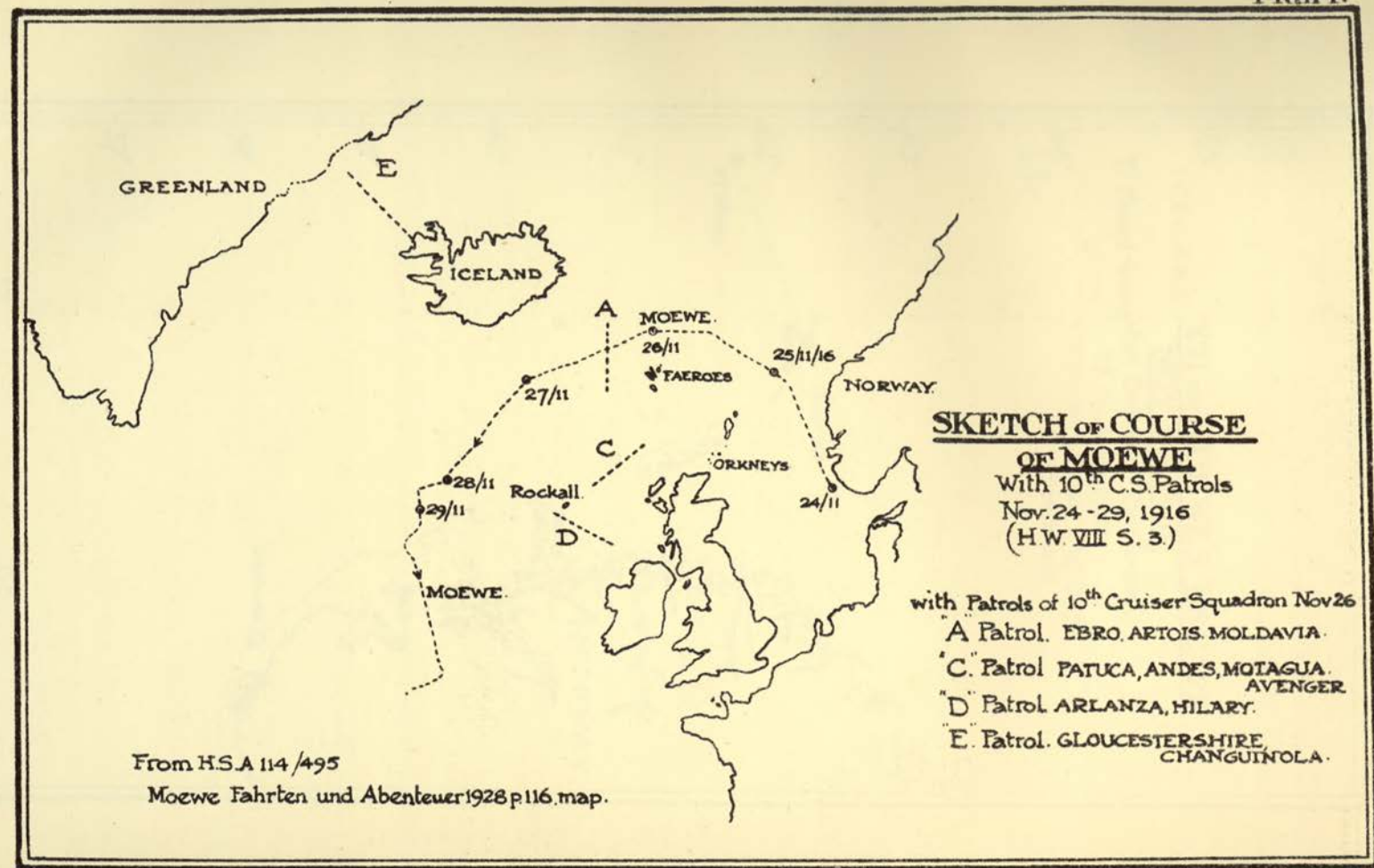
² Two officers of the *Moldavia* observed a light above the waterline at 2.30 a.m., November 27, but the *Moewe* was then a long way (over 100 miles) to the south-west.

³ A letter of the alphabet issued at Kirkwall to pass ships through the patrols and the 10th C.S.

⁴ Telegram, Admiralty to C.-in-C., 10th C.S., 4th November, 1916.

⁵ Admiralty telegram, November 10, 1916, 1707, in papers titled X.8737; this meant a serious diversion to Dutch ships and some of them evidently continued to call at Kirkwall.

⁶ The telegram of November 10, however, stated the route as from Falmouth direct to Holland, and not vice versa.



and she was not asked for it. Her funnel, so far as Commander Ashby remembered, was black. The *Avenger* asked the *Alsatian* for instructions, 5.15 a.m., and was told at 5.55 a.m. to let her proceed. (Plan 3.)

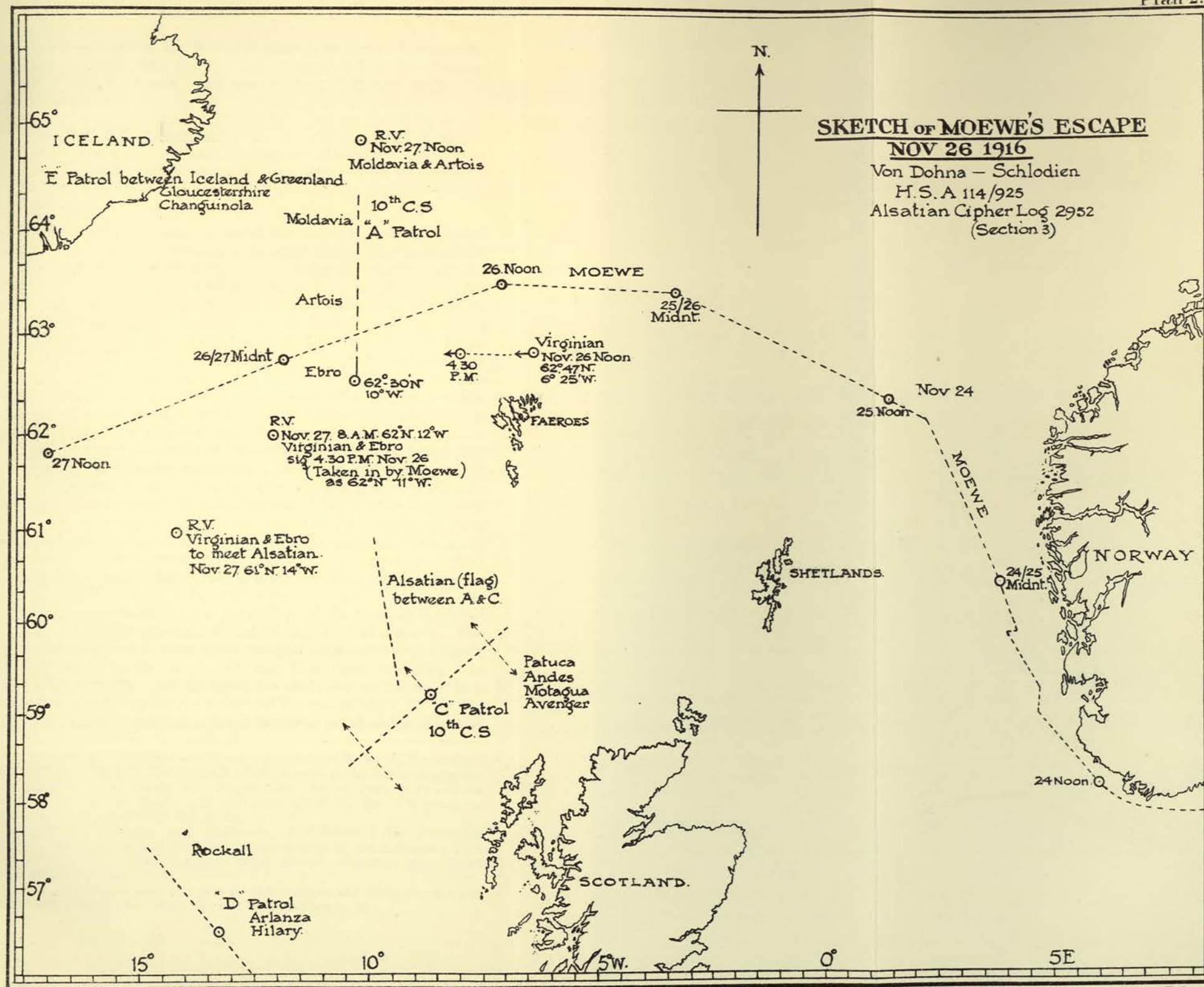
5. The Real S.S. "Gamma."—So far all was well, but that forenoon, December 2, the real Dutch S.S. *Gamma* turned up at Kirkwall,¹ and after being examined was cleared on December 2 at 11 a.m. Her funnel was yellow, with a black top, and a red, white and blue band.

As soon as Admiral Tupper received the report from Vice-Admiral Longhope,² at 8 p.m., December 3, he noticed that the *Gamma* had already passed, and signalled to the *Avenger* for further details. On asking Longhope in the Orkneys if there were any other *Gamma* he was told that the only other ship of that name was a German steamship of 2,234 tons. At 9.31 a.m. on December 5, an urgent message came from the Commander-in-Chief asking the Rear-Admiral, 10th Cruiser Squadron, for a description of the steamer from the *Avenger* and directing him to warn all patrols. The issue became still more serious on December 7, when news of a raider, actually the *Moewe*, came in from the Belgian relief ship *Samland*, and the Admiralty ordered an enquiry into the circumstances of the case. It was held on board the *Orion* on December 18, 1916, and found that the position of the *Gamma*, so far from the route laid down, should have been regarded as suspicious, and that the *Avenger* on being told she had called at Kirkwall should have asked her for the flag of the day. It was supposed for some time that the raider and the false *Gamma* were one and the same, but this was not the case. The raider was the *Moewe*; the *Gamma* was probably the German ship of that name acting as a supply ship.³ Little is known of her except her end. On June 2, 1917, at 4.30 a.m., the *Cambrian* and *Comus* of the 4th Light Cruiser Squadron were patrolling off the Naze on the coast of Norway when they sighted a steamer flying German colours. The *Cambrian* signalled her to stop, made straight for her and fired a blank round. She made for the shore. Captain Fountaine, unwilling "to take life unnecessarily," did not open fire and tried to intercept her. With her flag still flying she ran ashore off Kvasseim Light, 58° 33' N., 5° 41' E. Captain Fountaine ordered her crew to abandon ship and

¹ The Dutch S.Ss. *Soerakarta* and *Ryndijk* also arrived Kirkwall, December 3 (V.A.O.S. to S.O., 10th C.S., December 3, 1916), in spite of the Admiralty notice of November 4. The Dutch S.S. *Batjan* also cleared from Kirkwall on December 1 for Sandy Hook, and was intercepted by the *Virginian* on December 3, flying the correct flag of day.

² Vice-Admiral Orkneys and Shetlands, Vice-Admiral Sir Frederick Brock. The blockade work at Kirkwall was performed by the Admiralty Port Officer, who sent in a daily report of ships cleared, when the port closed (about 3 p.m. in winter).

³ Marine-Archiv, however, can give no information and state she was not a German ship. H.S./Q17. She was not the *Wolf* (see p. 9).



she was torpedoed by the destroyer *Mindful*. She turned out to be the German S.S. *Gamma*. A mystery hung round her, for, though she was unarmed, the stores she carried and the excessive number of her crew aroused suspicion, and she had evidently run herself ashore at a spot where she could easily be refloated. At an inquiry held into the circumstances it was held that the *Cambrian* should have opened fire immediately the *Gamma* tried to evade search by shaping course for the shore. In destroying her after grounding, it was considered that the *Cambrian* had infringed Norwegian neutrality, but that the action was a proper one from a military point of view.¹

6. British Forces in Atlantic.—The *Moewe* had meanwhile gone on and it was not till December 7, 1916, that the first report of her arrival. The Belgian steamer *Samland* had arrived at Falmouth with news that she had been stopped by a heavily armed German auxiliary cruiser on December 4, in lat. $48^{\circ}34' N.$, long. $27^{\circ}57' W.$, but in her capacity as a Belgian relief ship carrying a safe conduct from the German Ambassador at New York she had been released and allowed to go on. The news fell like a thunderbolt. A raider was again loose in the Atlantic. It was not possible to identify her with certainty as the *Moewe*,² but the report was sent on at once to the Commander-in-Chief, with the information that the raider was about 350 ft. long and 45 broad; had one broad, short funnel, two rakish masts, one 6-in., two 4·7-in., two 3-in. guns and four torpedo tubes.

Immediate steps were taken to cope with the situation. The *Weymouth* was detached from the 6th Light Cruiser Squadron³ and ordered to proceed to Bermuda, but she encountered heavy weather on the way and nearly a month elapsed after her arrival there on December 22 before she was ready for sea. Four vessels of the 10th Cruiser Squadron were also sent off to work in the Atlantic.⁴ These were the *Gloucestershire*, *Almanzora*, *Orcoma* and *Arlanza*. They sailed for Sierra Leone on December 14 and arrived at Freetown on January 4.⁵

Meanwhile, Paris and all commands in the Atlantic had been informed.⁶ Troop transports at Cape, Dakar and Sierra Leone were held up and orders were issued for a co-ordinated search.

¹ H.S.A. 149/410-439; M.07122/17.

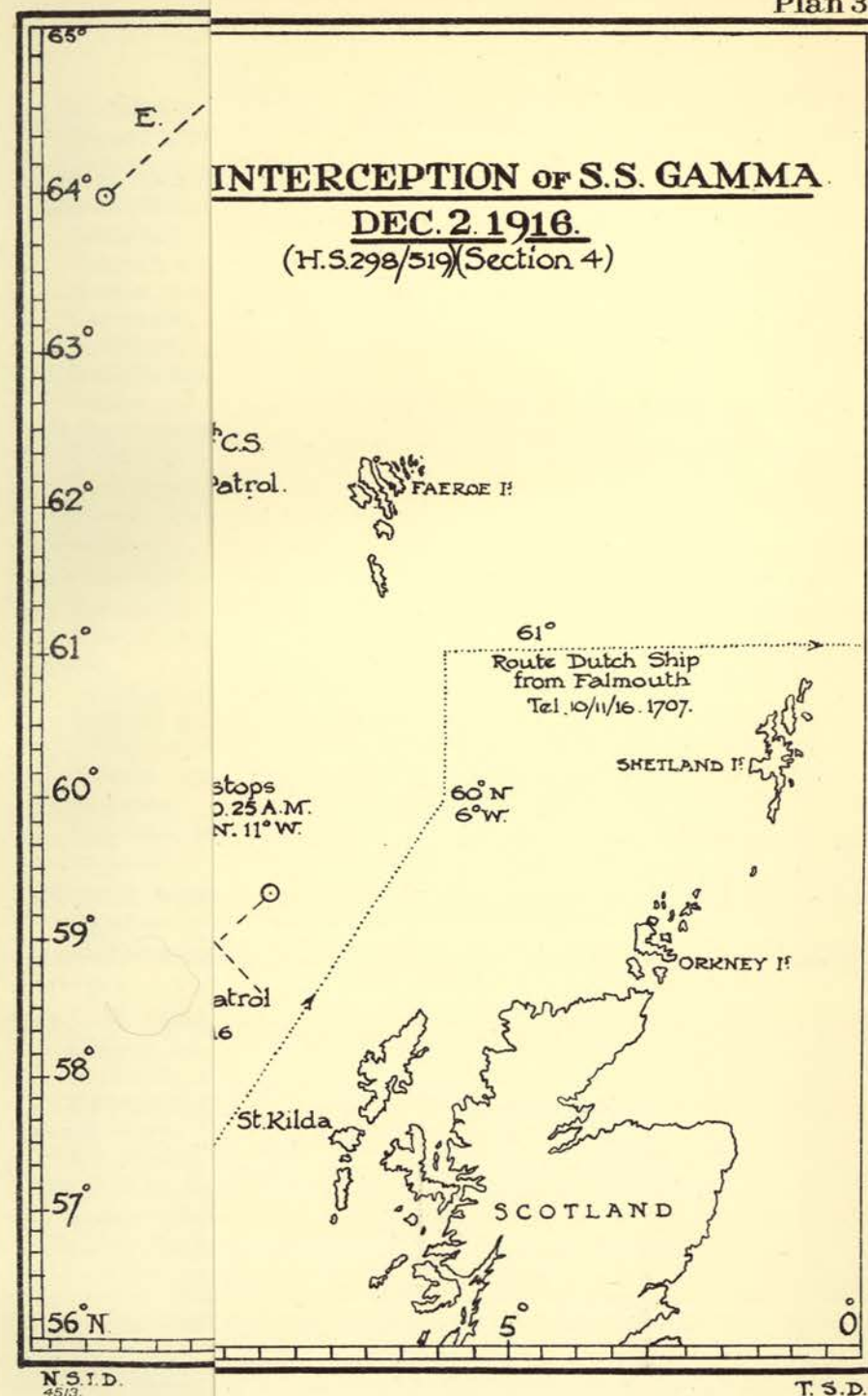
² Details of *Moewe* with photograph had been issued by I.D. in February 1916. H.S.A. 119/406.

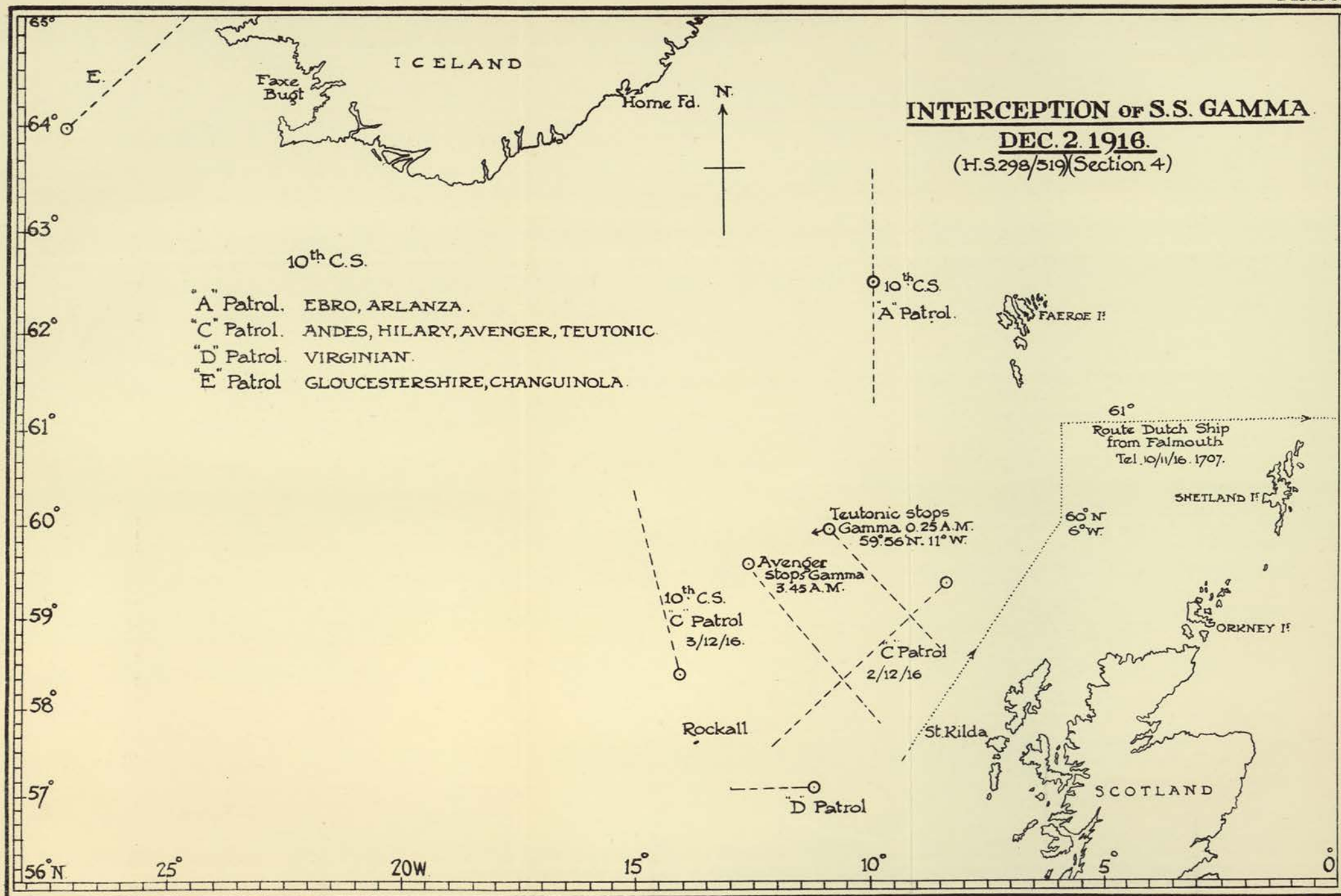
³ She appears to have been the only ship in the 6th L.C.S. at the time (Positions and Movements).

⁴ Order from Admiralty, December 7, 11.55 p.m. H.S. 314/611.

⁵ *Gloucestershire* on January 8. The *Arlanza* and *Almanzora* returned home on January 14. The other two remained to escort troop transports on the Cape route.

⁶ Telegram, December 7 1916. H.S. 328/707.





In the Atlantic at the time the British forces comprised some 22 cruisers and armed auxiliaries disposed as follows¹ :—

NORTH AMERICA AND WEST INDIES. Cruiser Force H Vice-Admiral Montagu E. Browning, Commander-in-Chief.

Leviathan, a.c. (Flag) (Captain Alex. Lowndes), at Bermuda.

Berwick, a.c. (Captain William F. Blunt), Kingston, Jamaica.

Antrim, a.c. (Captain Victor Gurner), Bermuda.

Carnarvon, a.c. (Captain William Bowden Smith), Bermuda.

Roxburgh, a.c. (Captain Frederic Whitehead), on passage to Jamaica from Bermuda.

Drake, a.c. (Captain Fawcett Wray), on detached service, left Bermuda for Trinidad, December 4.

Calgarian, a.m.c. (Captain Robert G. Corbett), Halifax.

Devonshire, a.c. (Captain B. T. Somerville), Halifax.

Cæsar, b.s. (Captain Cunningham Foot), guardship at Bermuda.

9th CRUISER SQUADRON (Cruiser Force I). Rear-Admiral Sydney Fremantle.²

King Alfred, a.c. (Flag) (Captain Frank O. Lewis), Sierra Leone.

Sutlej, a.c. (Commander Basil H. Fanshawe), Gibraltar.

Donegal, a.c. (Captain Warren D'Oyly), Dakar.

Ophir, a.m.c. (Commander John D. Warren), Sierra Leone.

Orotava, a.m.c. (Captain Arthur B. Hughes), on way to Sierra Leone.

Swiftsure, b.s. (Captain Henry F. G. Talbot), guardship at Sierra Leone.

CRUISER FORCE D (Cape Verde Is.).

Highflyer, c. (Captain Herbert Garnett), Sierra Leone.

Marmora, a.m.c. (Captain Walter Woodward), St. Vincent

SOUTH-EAST COAST OF AMERICA. Commodore (2nd Class) Aubrey C. H. Smith.

Glasgow, l.c., Capetown.

Amethyst, l.c. (Captain the Earl of Glasgow), Albrolos Rocks.

Edinburgh Castle, a.m.c. (Captain Herbert J. T. Marshall), Monte Video.

Macedonia, a.m.c. (Captain Forster D. Arnold Forster), Albrolos to Pernambuco.

Orama, a.m.c. (Commander Morshead B. Baillie Hamilton), Albrolos Rocks.

¹ December 8. Positions and Movements. Abbreviations :—a. c., armed cruiser ; l. c., light cruiser ; a. m. c., armed merchant cruiser ; b., battleship.

² Succeeded Vice-Admiral Sir Archibald Moore, September 22 1916. He had been appointed (December 3) to command the 2nd C.S. and Rear-Admiral Cecil Hickley was to relieve him. The latter's appointment was cancelled owing to illness and Rear-Admiral Thomas D. L. Sheppard was appointed to the 9th C.S. instead. H.S. 328/653, 687, 721.

7. **The 9th Cruiser Squadron.**—As soon as the report of the raider reached him, Rear-Admiral Fremantle put into force plans he had prepared for that very emergency and ordered his cruisers to sweep along the trade route towards Madeira. His arrangements, however, were never put to the test, for at 7 p.m. on December 8, when the *King Alfred* was 150 miles from Sierra Leone, he received a telegram from the Admiralty ordering him "to suspend action."¹

There followed instructions for the *Marmora*² to convoy troop transports and further orders setting in motion the ships of Vice-Admiral Browning's squadron,³ while the 9th Cruiser Squadron and other allied forces in the Atlantic were disposed so as to conform to an Admiralty plan that had been drawn up, after the *Moewe's* first raid,⁴ for diverting traffic from the ordinary routes.⁵ Admiral Fremantle was ordered to assemble his ships in lat. 10° N., long. 27° W., and to sweep with them up the traffic lane to St. Vincent (Cape Verde Is.).⁶

The subsequent history of the *Moewe* belongs to the Atlantic. It is sufficient to say that she captured 30 ships⁷, a total of 129,901 tons, was sighted by only one war vessel, the *Edinburgh Castle*, on February 16, and got safely back to Kiel on March 22 1917.

8. **Operation XX for Raider, December 10.**—The four ships of the 10th Cruiser Squadron had barely been sent off when a report came in shortly after midnight on December 9–10 from the Consul at Haugesund through the British Minister at Christiania to say that a large German ship of war, probably a raider, was expected to pass Christiania on December 12 and would probably "go out to sea" at Skudesnaes.⁸ There can be no doubt that the ship referred to in this particular case was the German S.S. *Prinz Friedrich Wilhelm* trying to get home from Tromsø, and reported already by the Consul at Haugesund on December 8.⁹ In his telegram, however, of December 9 he referred to her as "a large German ship of war," "probably a raider," and the report was passed without comment to the Commander-in-Chief, who immediately issued orders to take

¹ December 8, 1605. H.S. 328/742.

² *Marmora* to convoy *Ulysses* (and four others) to Devonport, December 8 1915, 7.15 p.m. H.S.A. 328/747.

³ Telegram, December 8, 2115. H.S. 328/756.

⁴ December 1915–March 1916.

⁵ Instructions for spreading shipping on Atlantic Trade Routes, March 22 1916.

⁶ Telegram, December 9, 0210 in H.S. 328/771. For Rear-Admiral Fremantle's orders see Letters of Proceedings, 9th C.S. in H.S. 773/94.

⁷ British 22, Norwegian 3, French 3, Japanese 1, Danish 1, of which 26 were sunk.

⁸ H.S. 315/10. Received December 10, 0.21 a.m.

⁹ H.S. 314/766. December 8, received 1436. On the telegram of December 10 there is a reference back: "see 1436, 8/12." If this is contemporary, the identity of the reports was recognised by someone at the Admiralty at the time.

up Disposition No. 1,¹ which embodied the plan for the interception of raiders prepared by Admiral Jellicoe in October 1916 to deal with an emergency of this sort.² (Plan 4.)

In this disposition the following lines were to be taken up:—

Shetland to Norway, by 4th Light Cruiser Squadron, to patrol an area, the centre line of which extended for 55 miles on either side of a position in lat. 60° N., long. 2° E., in directions 82° and 262°.

Fair Island Channel, by destroyer leaders or light cruisers, each accompanied by two destroyers.

Shetland to Faroe Is., by 2nd Cruiser Squadron and armed boarding steamers, to patrol an area whose eastern or dark limit ran 30° from a position 61° 10' N., long. 1° 0' W.

10th Cruiser Squadron, No. 2 Patrol, a line joining Butt of Lewis to south-east corner of Iceland.

This was the disposition taken up on December 10. The *Comus*, *Royalist* and *Calliope* of the 4th Light Cruiser Squadron sailed from Scapa at 4 p.m. with three destroyers, the *Mischief*, *Ossory* and *Minster*,³ and were followed an hour later by the 1st Light Cruiser Squadron⁴ with four destroyers. By 8 a.m. on December 11, the 4th Light Cruiser Squadron with the *Inconstant* and *Cordelia* were on the patrol line; the eastern ship of the line was just out of sight of land, and the squadron proceeded to sweep south to 59° 30' N.

The 2nd Cruiser Squadron and two armed boarding steamers had apparently taken up their position between the Shetland and Faroes.

The 10th Cruiser Squadron, in consequence of reports of submarines, was taking up No. 3 Patrol to the westward extending from Rockall Island to the south point of Iceland.⁵ This disposition was maintained throughout December 12.

9. **The "Wolf" and "Seeadler."**—The information given to the Commander-in-Chief on December 10, though meagre enough, gave warning of a real danger, for one raider had already got away and another was waiting to start. The raider *Wolf*⁶ under Captain Karl Nerger, armed with two 5.9-in. and four 4-in., and carrying a small seaplane and 500 mines had actually left Germany about December 1,

¹ Operation XX. Sailing orders 1st and 4th L.C.S. December 10 1916 in H.S.A. 224.

² M.09488/16, C-in-C., October 26 1916. Plans for dealing with . . . fast commerce raiders. Also H.F. Memo. 0022/489 of October 25 1916 in H.S.A. 212/3986.

³ H.S.A. 342/390.

⁴ *Galatea*, *Phaeton*, *Inconstant* and *Cordelia*.

⁵ See Disposition No. 2 in H.F. Memo. October 25 1916. On December 13 the 10th C.S. actually had four ships, *Avenger*, *Alsation*, *Columbella* and *Hilary*, out on a line 360° from 61° 30' N., 9° W. H.S. 298/538.

⁶ Hansa liner, *Wachfels*, 3,600 tons.

escorted by *U.66* and passing north of the Shetlands and Faroes had got safely out into the Atlantic.¹ Another was waiting to follow her.

This was the s.v. *Seeadler*² equipped as a raider, under Count von Luckner, which had been ready to start from Hamburg early in the month, but had been told to wait for the return of the merchant submarine *Deutschland*, for which British light cruisers were reported to be on the look-out.

These were the *Royalist* and *Comus* of the 4th Light Cruiser Squadron which has been sent off from Cromarty with four destroyers on December 8 to try and intercept the *Deutschland* returning from her second cruise to America and due off the Norwegian coast at the time.³ They did not find her⁴ but a German submarine lurking in the area fired a torpedo at the *Royalist*,⁵ and it may have been on the strength of her report, or of Neumünster intercepts, that the *Seeadler* was held up till December 21.

10. Attempt to Intercept German Steamship, December 13 (Plan 5).

—The operations to intercept the elusive raider going north were dislocated by an attempt to intercept another quarry, the German S.S. *Prinz Friedrich Wilhelm*, on her way south, whose movements had really originated the operation. She had been interned at Tromsø⁶ in the north of Norway early in the war, and on December 8 Consul Crane at Haugesund had sent word to say that she would leave the coast at Utsire but would be bound to pass outside territorial waters between Fokstenfor (*sic*) and Flekkefjord.⁷ The issue had been confused by his telegram of December 9 (*see* section 8) but was brought back to the real objective late at night on December 12 by a definite report from the Consul at Bergen that the *Prinz Friedrich Wilhelm* was leaving Odde⁸ that night at 11 p.m. The Commander-in-Chief passed it to the Commodore of 4th Light Cruiser Squadron with a warning that she could be off Karmoe at noon on December 13, and that he was sending four more destroyers

¹ *U.66* signalled (December 10, 2100) that she had lost touch with her in thick weather in 63° 23' N., 1° 42' E., on December 5. This gave a valuable position for the possible route of raiders. (War Diary, I.D. 3023, and H.S. 151.)

² Formerly American s.v. *Pass of Balmaha* captured by German submarine *U.36* on her way to Kirkwall on July 24 1915. *See* "Home Waters" V, p. 40.

³ H.S. 314/691.

⁴ The *Deutschland* reached the Bight (56° 27' N., 5° 18' E.) on December 9, 11 a.m. and arrived Lister Deep December 10, 5 a.m. (War Diary I.D. 3023.)

⁵ In lat. 58° 27' N., 4° 41' E., 26 miles from the coast of Norway, December 9, 6.30 a.m.

⁶ Lat. 69° 39' N., 18° 58' E.

⁷ H.S. 314/766. Fokstenfor probably for Fogsteinene in 58° 15' N., 6° 19' E. Flekkefjord is up Lister Fjord.

⁸ Odde is up Hardanger Fjord. Karmoe is an island on the coast opposite Utsire.

POSITIONS FOR RAIDERS

XX, YY, ZZ,

mo 0022 Oct 25, 1916. H.S.A 212/3986 (XX, YY)

8/16) amended Nov 21, 1916. H.S.A. 212/4064

1916 H.S.A 212/4200 (ZZ)

ers A,B,C,D, are not in the Memo. The names used in the Memo
Shetland-Faeroe Patrol running 30° from 61° 10' N, 1° W.
and Patrol, Shetland-Norway Patrol 82° and 262° from 60° N. 2° E.

to his assistance to rendezvous ten miles west of Utsire at 2 p.m.¹ December 13. Commodore Mesurier received this in the *Calliope* just before 1 a.m. on December 13, and ordered the *Comus*, *Constance* and *Royalist* to meet him 20 miles 135°² from Utsire at 10 a.m. His efforts were unsuccessful. The *Prinz Friedrich Wilhelm* passed Haugesund inside Karmoe Island³ at 10.45. a.m., and must have crossed Skudesnaes Fjord about noon on December 13 when the light cruisers were some 24 miles to the north-west of Karmoe. News of her passing Haugesund was despatched at once by the British Consul, and reached the Admiralty at 12.40 p.m., December 13. It was not sent on till 2.55 p.m. and did not reach the Commodore, 4th Light Cruiser Squadron till 3.38 p.m.⁴ Meanwhile the *Prinz Friedrich Wilhelm* had arrived at Stavanger at 1 p.m. At 2 p.m. the Commodore, in the *Calliope*, was off Skudesnaes Fjord and there he waited for an hour. Nothing was in sight and, assuming that the chase had "doubled back inside Karmoe," he decided to run down to the S.S.E. towards the Naze so as to spread across her probable line of advance. News of the *Prinz Friedrich Wilhelm*'s arrival at Stavanger at 1 p.m. reached the Admiralty at 2.20 p.m.⁵; it was passed to the *Calliope* by the Commander-in-Chief at 6.1 p.m., December 13, and was received by her at 6.20 p.m.⁶

11. "**Prinz Friedrich Wilhelm**" passes, December 14.—The Commodore evidently thought that she would remain at Stavanger, and in view of the original intention of the sweep—namely to intercept a raider outward bound,—he went off to the north-west and resumed his original patrol area, leaving only the *Comus*, Captain Alan Geoffrey Hotham, and a destroyer, the *Noble*, to watch the Stavanger exit during the night. The area was too big for a single cruiser. The *Prinz Friedrich Wilhelm* left Stavanger early on December 14. When she pushed out from the Fjord the *Comus* was some 20 miles to the westward, while the *Constance*, *Royalist* and *Calliope* were some 100 miles to the north-west watching for the imaginary raider. The German ship had a narrow escape, for the visibility was good and the Norwegian S.S. *Eagertun* sighted her at 10.10 a.m. 40 miles south of Stavanger,⁷ and seems to have seen the *Comus* as well, which in her turn caught a glimpse of a merchantman against the high coast line during the forenoon.

¹ H.S. 315/834, C.-in-C., December 12, 2359, received *Calliope*, 12.55 a.m., December 13. H.S. 874/313.

² This position from Commodore's report of proceedings of December 15 (H.S. 874/291) is south of Karmoe in the entrance of Skudesnaes Fjord but seems to be a misprint for 315°, for *Calliope*'s track chart (H.S. 878/26) shows her 313° (not 135°) from Utsire at 10 a.m.

³ See Chart 2182 C.

⁴ H.S. 315/910, 951; H.S. 874/314.

⁵ H.S. 315/936.

⁶ The C.-in-C.'s signal omitted her time of arrival. H.S. 874/292.

⁷ Presumably 40 miles south of Skudesnaes Fjord.

The *Comus* could not follow into neutral waters and the *Prinz Friedrich Wilhelm* slipped down the coast and got away. At 12.45 p.m., December 14, the Admiralty sent word to the Commander-in-Chief that nothing had come in as to the supposed raider and he was to resume normal conditions.¹ At 2.45 p.m., therefore, he ordered Commodore, 4th Light Cruiser Squadron to send back two light cruisers after dark, leaving the other two and four destroyers to watch for the *Friedrich Wilhelm*.² By 5 p.m., however, the Commodore had got the news that the *Prinz Friedrich Wilhelm* had left Stavanger, and knew she had escaped. His ships were short of fuel and he asked permission to return. It was approved at 8.51 p.m., and by midnight the light cruisers and destroyers were all on their way home.³ (Plan 5.)

12. 2nd Cruiser Squadron and 2nd Light Cruiser Squadron.—

While the 4th Light Cruiser Squadron were watching the Norwegian coast three armoured cruisers of the 2nd Cruiser Squadron and two boarding steamers were patrolling further north, with an interval of 25 miles between patrols, on a line about 100 miles long between the Shetlands and Faroe Island.⁴ The 2nd Light Cruiser Squadron⁵ had been watching the same area from Noup Head, Orkneys, to Sydero, Faroes. It sailed from Scapa on December 12 at 3.45 p.m., and with one boarding steamer, the *Dundee*, and six destroyers of the 13th Flotilla, was spread by December 13, 4.55 a.m., on a line of bearing N.N.W. towards Sydero 25 miles apart. The wind and sea were increasing. The destroyer, *Nereus*, was obliged to heave-to that afternoon, 3.07 p.m., with a damaged foremast, and the Commodore ordered the destroyers to return. This left only the light cruisers on patrol, and the next day, December 14, at 3.10 p.m., they received orders to return; they had intercepted nine ships in all,⁶ but had seen nothing of a raider.

13. Commander-in-Chief on Norwegian Neutrality.—

Elaborate as these dispositions were they had achieved nothing because there was nothing to achieve. No raider was out, and in this particular operation there can be little doubt that a misunderstanding arose from the Consul at Haugesund referring to the *Prinz Friedrich Wilhelm* as a probably raider.

¹ H.S. 316/89.

² H.S. 874/314, received *Calliope*, 3.19 p.m.

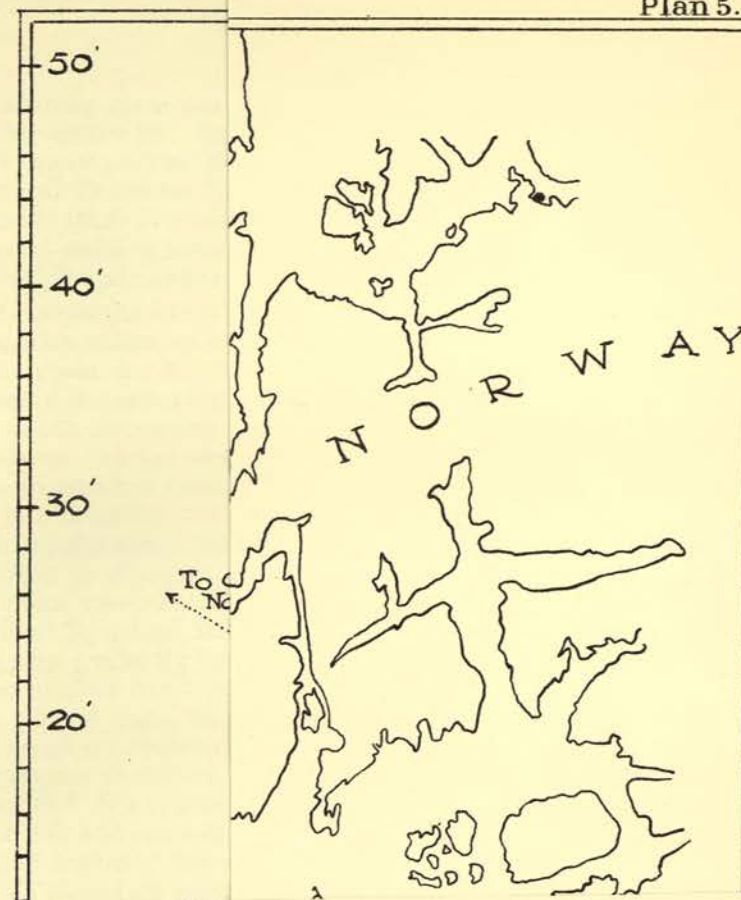
³ H.S. 874/315.

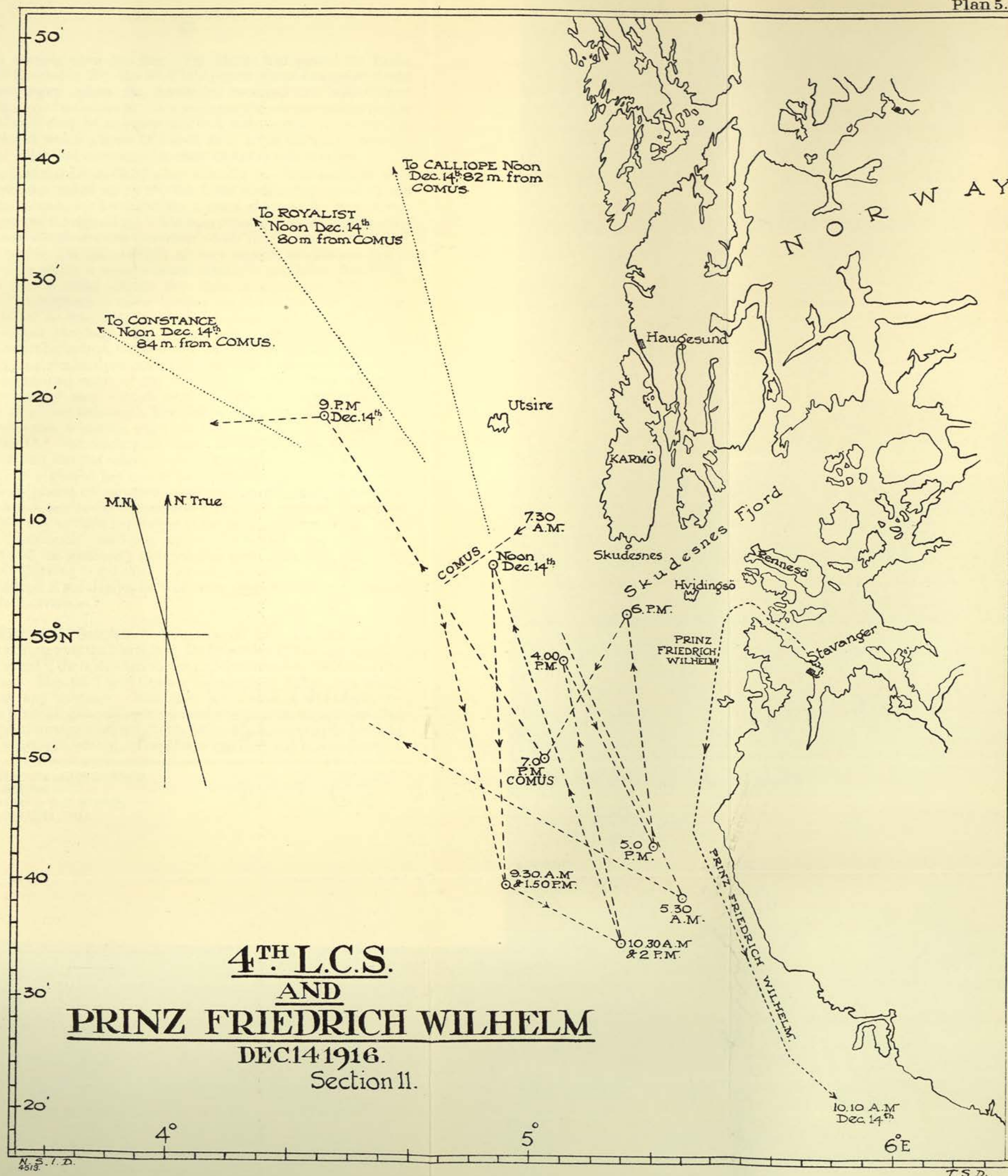
⁴ No orders or reports from 2nd C.S. have been seen, but from deck logs the *Minotaur* left Scapa December 10; *Shannon* was on patrol December 13-17; *Achilles* at sea December 10-15; *Cochrane* at Busta Voe and *Duke of Edinburgh* at Cromarty. There is a gap in 2nd C.S. War Records from October 19, 1916, to January 19, 1917, in H.S.A. 344.

⁵ *Southampton* (Commodore Cecil Lambert), *Dublin*, *Sydney* and *Melbourne*.

⁶ Norwegian 3, Swedish 3, Dutch 2, Danish 1. Report from Commodore, 2nd L.C.S., in H.S.A. 341/339 (2nd L.C.S. War Records). For Sailing Orders (December 12) and Orders to Squadron, see H.S.A. 341/334, 336.

Plan 5.





The warning came too late. The *Moewe* had passed the Faroe Isles on November 26; the *Wolf* had passed about December 6 and was well away before the Admiralty received the report from Christiania on December 10. In comparing the relative merits for the protection of trade of a system of search and a system of convoy, the occasions on which a score of vessels were set in motion to discover a raider which was nowhere near must be taken into account.

The Commander-in-Chief was evidently far from satisfied with the disposition taken up by the 4th Light Cruiser Squadron off the Norwegian coast, for he called for a track chart of its movements with copies of the signal logs.¹ The operation remains an illuminating instance of the distracting situations which the Commander-in-Chief had to meet. On the strength of very meagre intelligence and a telegram in which a merchantman trying to get home was transformed into a raider coming out, light cruisers were first of all disposed to intercept a raider leaving the North Sea and then had to be shifted to intercept the much less important but real quarry of a German merchant ship going home. The Commodore, 4th Light Cruiser Squadron, not knowing that the two reports referred to the same ship, evidently regarded his first task as the more important and concentrated most of his force on it. The *Prinz Friedrich Wilhelm* slipped past, though even had she been intercepted, her capture would not necessarily have followed, for she was under escort of a Norwegian destroyer when she was seen off Christiansand on December 14.² She reached the island of Samsøe at the entrance to the Great Belt and ran ashore there on December 17. The Commander-in-Chief regarded her escape as another instance of the severe restrictions placed on effective operations by the strict observance of Norwegian territorial waters, and urged that pressure should be put on Norway to close her waters to German merchant ships. This view the Admiralty could not accept. They had other stations to think of and the immunity of territorial waters cut both ways. It helped our shipping to get clear of the coast in Norway, and in Spanish waters helped it greatly on its way from Gibraltar to French ports in the Mediterranean.³

14. Escape of "Seeadler."—December 21–25. The menace of a raider still hung over the North Sea. On December 22 the Commander-in-Chief asked if there was any further information but the Admiralty had none.⁴ The 1st Light Cruiser Squadron at Scapa was ready to go out any moment. Two days later came a wire from the Admiralty stressing the necessity of taking all possible steps to prevent the escape of further raiders. "It is by no means certain they would pass up territorial waters. The *Meteor* did not, and it is believed a

¹ See H.S. 874 and H.S. 878/26.

² H.S. 874/284.

³ M.011237 in H.S. 874/318.

⁴ H.S. 317/1011, 1074.

later raider avoided territorial waters. Frequent sweeps of one or two light cruisers with destroyer screen, weather permitting, should be undertaken. The probable best locality for interceptions is the area enclosed between lat. 61° and 63° and long. 0° and 3° E.¹ There is no objection to moving a light cruiser squadron north from Rosyth if necessary."

The Commander-in-Chief replied that the 1st Light Cruiser Squadron was at Scapa ready to go out at once if any information came in,² to which came a further reply from Whitehall that they could not depend on receiving information. Fortune that day was on the German side. At the very hour³ when these telegrams were passing, the *Seeadler* was passing the 10th Cruiser Squadron Patrol and was actually waiting for a signal from the armed merchantman *Patia* to announce her fate.

Her captain, Count Felix von Luckner, gives a vivid account of her escape.⁴ His crew were selected from men who could speak Danish: their pockets were stuffed with postcards from Norway; their bunks were plastered with photographs of Norwegian girls, and von Luckner pored over Lloyds' Register to select an appropriate name. The *Maletta* was chosen, a Norwegian ship of about the same dimensions,⁵ lying at Copenhagen, where she had bought a new capstan motor, and von Luckner tells us that a similar motor from the same Danish firm was quickly installed and the purchase duly noted in the log. Unfortunately while the *Seeadler* lay waiting wearily off Heligoland, the real *Maletta* sailed and was boarded by the *Avenger* on December 10.⁶

Von Luckner had to find another name, and says he chose the *Carmoe*.⁷ With great care and much testing of inks the papers were altered. Then came another disappointment. The Norwegian papers reported that the *Carmoe* had been taken to Kirkwall.⁸ The name had to be changed again.

¹ Admiralty to Commander-in-Chief, December 24, 2050. This may have been based on the intercepted position of the *Wolf* on December 5, given by *U.66* on December 10 (see p. 10).

² December 25, received 12.47 a.m. H.S. 318/539, 586.

³ December 25, 1110. H.S. 318/586.

⁴ Seeteufel, Graf Felix v. Luckner, 1922.

⁵ Pass of Balmaha (*Seeadler*) s.v., 1,571 tons, 245 ft. by 38.8 ft., built 1888; *Maletta*, 1,703 tons, 259.5 ft. by 38.3 ft., built 1884. Other similar ships were the *Carmanian*, 1,840 tons, 260 ft. by 38.7 ft., and the *Hero*, 1,709 tons, 265 ft. by 39.5 ft., built 1873.

⁶ December 10, 9 a.m., $60^{\circ} 27' N.$, $9^{\circ} 11' W.$, from Copenhagen to St. Thomas in ballast (10th C.S. Reports, H.S. 298/535). The *Maletta* reported having been boarded by a German submarine on December 8 in $62^{\circ} 10' N.$, $2^{\circ} 12' W.$

⁷ There was no such ship; probably he means the Norwegian s.v. *Carmanian*.

⁸ Luckner, 143. No ship of that name or of any similar name was either boarded or sent into Kirkwall in December. Returns of ships boarded are in H.S.A. 116.

Von Luckner tells us that he thereupon threw Lloyds' Register away and proceeded to consult "Love's Register." *Irma* was the name of his fairy princess. *Irma* it should be. Whether *Irma* it was, remains doubtful, for the only *Irma* in Lloyds' Register was a lighter at Hamburg belonging to the German Africa line, and any such name must have aroused suspicion and foiled all his careful preparations. He sailed on December 21 and passed Horns Riff at 10 p.m.¹ No one stopped him as he passed up the North Sea.

15. The "*Patia*" and the "*Hero*."—On Christmas Day he was well north of the Faroe Isles² when a British steamer hove in sight with the signal flying to heave to; "a Christmas surprise and not a pleasant one." The 10th Cruiser Squadron that day had only six ships out. On "A" Patrol³ there were only two ships, the *Patia* and *Columbella*. Further south on "C" Patrol⁴ there were three ships, the *Orvieta*, *Avenger* and *Hilary* (S.N.O.).

The *Patia*, Commander William G. Howard, sighted a sailing vessel to the north-west at 9.25 a.m., and at 10.50 a.m., after ordering her to heave to, stopped and boarded her in $63^{\circ} N.$, $9^{\circ} 23' W.$ ⁵ She gave her name as the Norwegian s.v. *Hero* from Carlsund to Melbourne.⁶ The boarding officer examined the papers, asked the reason for her delay in sailing, and was told she was detained by rumours of a German raider. "Well, Captain," he said, "your papers are all right but you have an hour and a half to wait till you get the signal to go on."⁷ The remark was nearly fatal to the *Seeadler*. Von Luckner tells us that someone hearing it said: "All is lost," and someone else repeating it lit the scuttling fuses, which were cut just in time. Von Luckner waited anxiously for the next signal. The *Patia* reported to the Senior Officer in the *Hilary*⁸ at 11.20 a.m. and ended up the signal with "papers correct." At 12.8 p.m. came the message to the *Patia* to "allow vessel detained

¹ He received orders on December 19 to sail "at discretion." In his book (p. 149) he says a northerly wind was blowing and he passed in sight of the English coast.

² The rough map in the "Sea Devil," Lowell Thomas, shows him somewhere about $63^{\circ} 20' N.$, $7^{\circ} 40' W.$

³ On a line 20° from $N.$, $60^{\circ} 11' W.$ H.S.A. 299/12.

⁴ Line 325° from $59^{\circ} 17' N.$, $8^{\circ} 30' W.$

⁵ *Patia's* signal log (26130). Deck log (copy) says: "9.25 a.c. N.W. to intercept sailing ship, 10.50 stopped. Boarded Norwegian ship *Hero* from Carlsund to Melbourne, cargo lumber, $63^{\circ} N.$, $9^{\circ} 23' W.$

⁶ Von Luckner states his cargo was certified as consigned to the British Government in Australia. Marine Archiv has confirmed the use of name *Hero* by *Seeadler*. M.A., H.S./Q.17.

⁷ Seeteufel, 163. This agrees with *Patia's* signal log, 11.20, *Patia* to *Hero* semaphore: "Ship to remain hove to pending instructions, about two hours, boat to return."

⁸ "Boarded and detained Norwegian s.v. *Hero*, Carlsund to Melbourne, cargo lumber, request instructions, lat. $63^{\circ} N.$, long. $9^{\circ} 23' W.$, steering 260° , papers correct."

to proceed,"¹ and at 12.20, December 25, the *Patia* hoisted the longed-for permission to "Proceed"² and wished the ship a "Pleasant voyage"; the *Seeadler* replied "Thank you."³

Von Luckner sheeted home his sails and continued his voyage which was to end in shipwreck in the Society Islands, August 2 1917, a boat cruise of 2,300 miles, capture in the Wakaya Islands, escape in a motor boat, internment in New Zealand, fame, 20 orders and medals and marriage to Ingaborg (not Irma). His "Thank you" comprised much more than he knew.

No one in the boarding party seems to have noticed the 1,000 h.p. motor in the ship and no one tested the 18 words of Norwegian which was all the First Officer is said to have possessed.⁴ The ship was skilfully disguised and her detection was skilled work which could only be done by skilled persons in harbour. Almost at the same time (10 a.m.) the *Avenger*, some 190 miles to the southward, had stopped the Danish sailing vessel *Proven* on her way to Rabatz with wood and had allowed her to go on, but was ordered by the *Hilary* at 11.20 a.m. to send her in to Kirkwall with an armed guard, a procedure which might well have happened to the *Seeadler*. These were the only two sailing vessels stopped in the far north on Christmas Day.

This was the end of the German attempt in December to get a number of raiders to sea. Though they never became so serious a problem as the submarine, yet they did a large amount of damage and their adventurous cruises did much to keep the flame of enthusiasm alive in German hearts. Certain it is that many more would have put to sea, if it had not been for the menace of the Grand Fleet and the 10th Cruiser Squadron. (Plan 6.)

16. The 10th Cruiser Squadron.—Winter was the most difficult time for the 10th Cruiser Squadron. From December 9–20 strong north-easterly winds blew almost continuously with heavy snow squalls.⁵ The squadron was barely strong enough for its task.

On December 3, about the time that the *Wolf* passed, its disposition⁶ was:—

"A" Patrol, on line 360° from 62° 30' N., 10° W.: *Ebro*, *Arlanza*.

"C" Patrol proceeding to line 345° from 58° 20' N., 14° W.: *Andes*, *Hilary*, *Avenger*, *Teutonic*.

"D" Patrol cruising between Rockall and 10° W.: *Virginian*.

¹ Alsatian cypher log (29526).

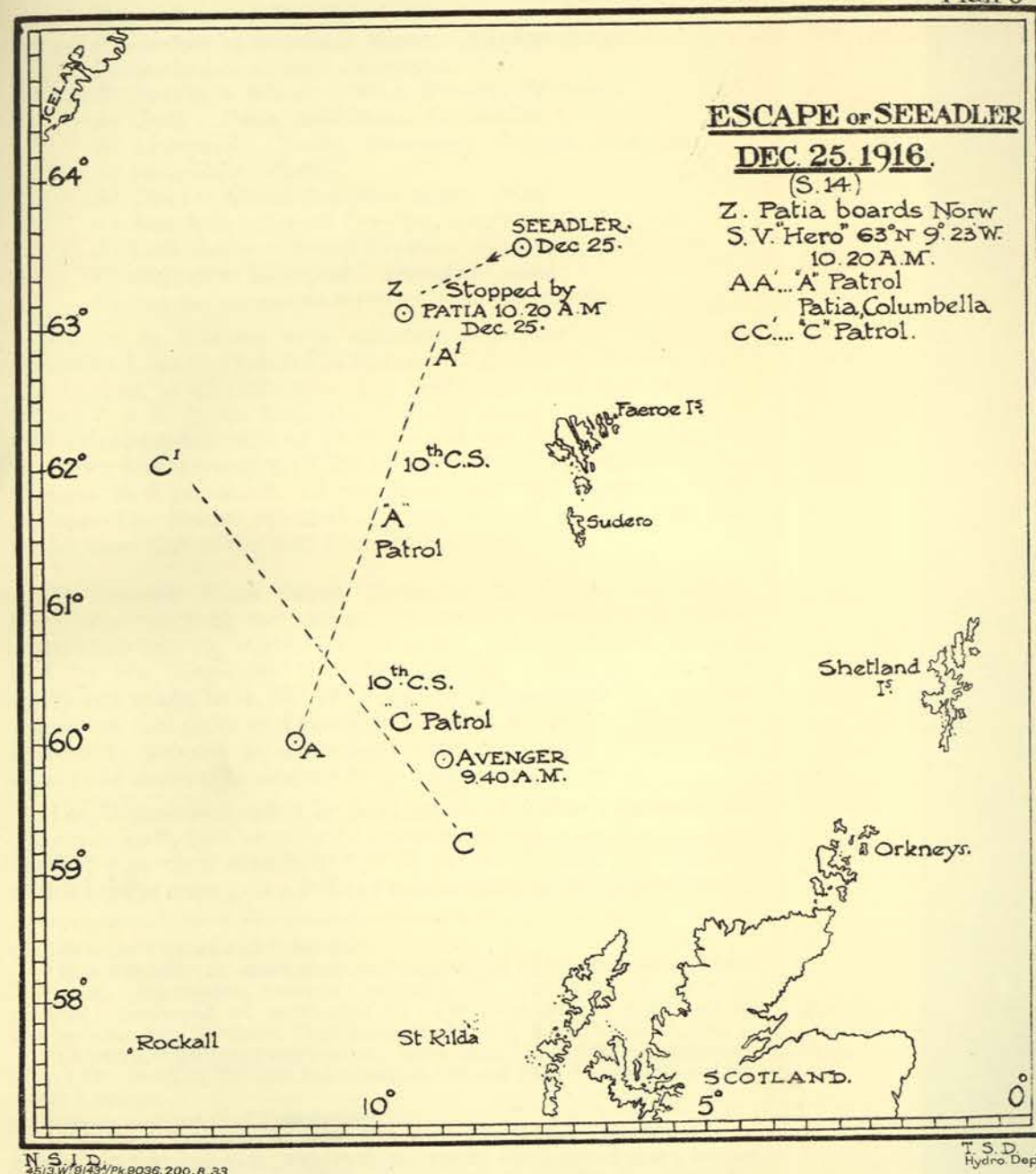
² Reise fortsetzen: "continue voyage," Seeteufel, 166.

³ Seeteufel, 166. *Patia's* signal log (26130). *Patia* to *Hero*, 12.25: "Pleasant voyage." Reply: "Thank you."

⁴ Seeteufel, 164.

⁵ H.S. 298/542.

⁶ H.S. 298/523.



"E" Patrol, Denmark Strait : ¹ *Changuinola*, *Gloucestershire*.
 Proceeding to "E" Patrol: *Otway*.
 Proceeding to Swarback Minns : *Alsation* (Flag).
 Proceeding to Clyde : *Montagua*.
 At Swarback Minns : *Artois* (French), *Moldavia*.
 At Clyde : *Patia*, *Hildebrand*, *Columbella*.
 At Liverpool : *Orvieto*, *Almanzora*, *Orcoma*, *Victorian*.
 At Loch Ewe : *Patuca*.
 At Oban : Armed Trawlers *Saxon*, *Arley*.
 At Aberdeen : Armed Trawlers *Tenby Castle*, *Walpole*.
 At Loch Swilly : Armed Trawlers *Rushcoe*, *Robert Smith*.
 Fitting out at Liverpool : *Armada Castle*.
 Fitting out for special service : *Kildonan Castle*.

Delays in refitting were common and Admiral Tupper, on December 1, out of a total of 24 had only 13 ships at sea instead of 17. But in spite of all difficulties they performed their task and performed it well. In the fortnight from December 5 to December 20 they intercepted a total of 91 ships and sent in 18.² During the year they had intercepted 3,388 vessels and sent in 889, amounting to some 26.6 per cent.³ Of the many hard and dangerous tasks performed by British squadrons during the war, perhaps none was harder than that of the 10th Cruiser Squadron.

17. Harwich Force Sweep, December 12.—While the Grand Fleet was watching for raiders, Commodore Tyrwhitt had been despatched into the Bight. In the evening of December 11 he was told by the Admiralty that two German destroyers and two auxiliaries might be in 54° 27' N., 4° 55' E.⁴ between 10 p.m. and 1 p.m. on the night of December 12–13.⁵ At 10.20 p.m. he was ordered to proceed as convenient with three light cruisers and eight good destroyers, and not to go east of long. 5° 30' E.

The Commodore sailed in the *Centaur* at 9 a.m. December 12, accompanied by the *Canterbury*, *Cleopatra* and two destroyer divisions. By 6.15 p.m. they were in 54° 16' N., 4° 03' E., and proceeded to search for the enemy on a front of twelve miles, with cruisers spread

¹ Between Iceland and Greenland.

² H.S. 298/546. Of which there were intercepted 21 Norwegians (of which 9 sent in). Intercepted, neutrals: eastbound 27, westbound 18. Sent in, neutrals: eastbound 15, westbound nil. For particulars of ships sent in and by what ship, see Grand Fleet Secret Packs, Vol. XXXIV, H.S.A. 116.

³ Of which, intercepted and sent in: Norwegian, 718 and 350; Americans, 67 and 41; Swedish, 221 and 144; Danish, 346 and 154; Dutch, 208 and 93. See H.S. 299/28.

⁴ Sixty miles north of Terschelling.

⁵ Telegram: December 11, 1950, H.S. 451. This telegram was based on an intercept of 3.56 p.m. (I.D., Vol. 1149, No. 30435) which stated that a barrier breaker group was proceeding that night to 53 beta (54° 27' N., 5° 55' E.) thence with zigzag course, as far as 161 gamma (54° 27' N., 4° 45' E.). Two torpedo boats would go with them.

three miles apart and the destroyers in subdivisions one mile apart between them. The search was without result, and though the Commodore was confident that his squadron was in the correct position, he saw nothing of the German vessels, and at 1 a.m., December 13, shaped course for Harwich.¹ A week later found him again at sea.

18. Exploring Sweep, Swarte Bank, December 19.—For some time vague reports emanating from Holland had pointed to the Germans laying additional mines in the old Swarte Bank Minefield,² between the Wash and Terschelling, and on November 25 orders had been issued that ships were not to approach within ten miles of its eastern and southern boundaries.³

Admiral Fitzherbert thereupon suggested on November 30 that these ten mile strips should be searched as soon as possible and drew up a plan of search designated "Operation M. S. I." The strip east of the old area was to be explored by the 10th Sloop Flotilla, and the strip south of it by the Lowestoft and Grimsby paddlers.⁴ An operation of this magnitude called for a strong supporting force, and Commodore (T) made arrangements to support it with three light cruisers and six destroyers. The *Centaur*, *Penelope*, and *Canterbury*, left Harwich on this task at 8.30 p.m. on December 18, and for two days patrolled east of the mine-sweepers, separately during the day and in company at night. Nothing was seen of the enemy. By nightfall on the 20th the sweeping was over, apparently without result,⁵ and the whole force returned to port. There Commodore Tyrwhitt found a welcome addition to his force. The *Grenville* and eight destroyers had arrived from the Grand Fleet the day before, December 19, as a temporary reinforcement to his flotillas.

They were greatly needed, for out of the 21 destroyers of the 9th Flotilla, 12 were at Dover and five were under repair; the 11 available destroyers of the 10th Flotilla were now joined with the 9th Flotilla and placed under Captain St. John, of the *Undaunted*.⁶

19. "Hoste" and "Negro" sunk, December 21.—While the Harwich Force in the south was busy covering minesweepers, the Grand Fleet in the north had been carrying out a series of exercises, which were unfortunately marred by a loss that cast a gloom over the Christmas festivities of the Fleet.

¹ M.011090/16, Comm. (T) December 13 1916, H.S. 246/300. Position of *Centaur* at midnight, worked back, was 54° 24' N., 5° 21' E.

² Laid by *Stralsund* and *Strassburg*, April 18 1915. See H.W. IV/S.87 and plan H.W.V., p. 50. It was believed to be clear by Admiral, Minesweeping in August 1916.

³ Telegram, Admiralty, November 25 1916, 2335 in M.010875/16.

⁴ No reports of the operation have been seen.

⁵ Plan of sweep proposed for 10th Flotilla is in M.010875/16.

⁶ H.S. 246/313. Positions and Movements, December 16-31.

The Fleet left Scapa on December 19, and the next day carried out exercises for the securing of a good strategical position before battle to prevent an enemy's retreat to port. They also dealt with the problem of an advanced force keeping in touch with an enemy whilst avoiding action.¹

During the exercises in the forenoon of December 20 the Flotilla Leader *Hoste* (Commander Graham Richard Edwards) developed a defect in her steering gear and made for home with the *Negro* (Lieutenant-Commander Alexander H. Cyr) on her bow acting as a screen. Dusk fell and the *Negro* took station astern. At 1.30 a.m., December 21, the two ships were on a course S. 66 W. by standard compass, going 12 knots; the lights of Fair Island were in sight, seven points on the starboard bow; navigation lights were burning, and the Battle Fleet on the starboard quarter was slowly coming up behind when the *Hoste's* helm suddenly jammed. She flashed a "not under control" signal² which was not answered. The *Negro* came up and ran into her stern, dislodging both depth charges,³ which exploded under the engine-room of the *Negro* and blew up the stern of the *Hoste*. Both ships were severely damaged. In the *Hoste* the ship was buckled aft, opening a "trench" across the upper deck, and the after gun was unshipped. In the *Negro* the engine-room was flooded and all lights went out.

As soon as the report reached her, the *Iron Duke* despatched the *Castor* and four destroyers to stand by the damaged ships. A heavy sea was running, but the *Negro* asked to be taken in tow, and half an hour later asked for a hawser. The *Marmion* (Commander Wm. S. Leveson-Gower) was getting one ready when at 3.50 a.m. the *Negro* signalled "Cancel retowing, my bulkheads are giving way." It was then 4 a.m.; the *Marmion* closed and was only some 75 yards away when the *Negro* suddenly reared her stern into the air and slowly disappeared. In the heavy sea it was difficult to get hold of the men who were hurled against the ship's side and smothered in oil fuel. Many perished. Only one officer (Sub-Lieutenant Frederick Charles N. G. Thursby) and 33 men were saved.

Meanwhile, the *Hoste* had struggled on in the dark with the sea increasing till after 5 a.m., when a very heavy sea caught her and wrenched her from stem to stern. It was followed by two more. The ship's back was broken aft, and as it fell away, tore away the after bulkhead of the engine-room. Engineer Lieutenant-Commander Francis Lyon came up and reported that the engine-room was flooding, that he had cleared the stokeholds, turned off the boilers, and that the ship would probably founder. At 5.12 a.m.

¹ Grand Fleet Orders and Memoranda. *H.S. 255/January 4 1917.

² A signalman went down to hoist the "not under control" lights. One of them was broken and the lamp trimmer told him he must get the captain's permission to open the door in the bulkhead to the lamp room.

³ There was a sentry posted on them and the safety forks were stated to have been in place with safety levers to "safe."

the Captain signalled to the *Marvel* "Close and take off crew." The *Marvel* (Commander Edwin A. Homan) switching on her searchlights could see in their glare the *Hoste* lying in the trough of the sea with her after part under water, oscillating from side to side. The *Prince* by this time had taken station to windward and was pumping oil overboard to lessen the break of the sea. The task of rescue was difficult, but in the *Hoste* there was no noise or confusion. The men were fallen in foreward. Ten times the *Marvel* came up just closing her, and as the ship towered high above them and then fell away the men jumped on board in ranks whenever they could. The whole crew was saved uninjured except three "squashed between the ships," and one who broke his leg. When all were apparently on board, a solitary bluejacket appeared on the forecastle of the *Hoste*. Commander Homan went ahead again and took him off. Ten minutes later the *Hoste* disappeared beneath the waves. Her Commander was brought before a court-martial on December 29, charged¹ with losing his ship negligently or by default and was acquitted. A court also sat to enquire into the cause of the *Negro's* loss and found no blame attributable to anyone, and acquitted Sub.-Lieutenant Thursby and the survivors.

Their Lordships expressed their very high appreciation of the gallantry and excellent seamanship displayed by Commander Edwin A. Homan in rescuing the crew of the *Hoste* under most difficult conditions.²

These two vessels were of recent build,³ and, at a time when every command was calling for destroyers, their loss was severely felt.

20. Grand Fleet Light Cruiser Sweep, December 25-28.—On December 19, there came in a telegram from Trondhjem⁴ to say the German S.S. *Brandenburg* was ready to start at any time and might be leaving about Christmas or New Year. The Commander-in-Chief issued orders accordingly on December 23 for a light cruiser and two destroyers to be despatched to Lerwick, there to maintain steam for 20 knots at one hour's notice, and on receipt

¹ In A.L., March 31 1917, it was pointed out that the circumstantial letter was insufficient as it did not give the slightest indication of the nature of the negligence or default charged against the accused. Further, the prosecutor stated that he did not desire to call two witnesses whom the accused had summoned but did not call. It was his duty to call all witnesses whose evidence he considered to be material. Further, the court called witnesses after the accused gave evidence, contrary to Art. 686, Clause (5), which limits the right of the court to call witnesses to the time before the accused is called on for his defence or gives evidence.

² Papers titled C.M., December 29 1916, *Hoste* and *Negro*, N.L. 5024, 10093/17.

³ *Hoste*, 1,666 tons, 4 4-inch, 4 torpedo tubes; *Negro*, 1,030 tons, 3 4-inch, 4 torpedo tubes.

⁴ H.S. 317/262. Martin, Trondhjem to Admiralty, received 9.30 p.m.

of orders to proceed to make for the Norwegian coast south of Krakenaes Light¹ in 62° 2' N., 5° E., cruising up to 62° 15' N., and sweeping down the coast.² No further information came in and the cruisers do not seem to have gone out.

Meanwhile, on December 24, the Commander-in-Chief had again been warned to take all possible precautions against the escape of raiders,³ and the Admiralty added that the best locality for interception was the area between 61° N. and 63° N., and between long. 0° and 3° E. The Commander-in-Chief replied on the 25th that the 1st Light Cruiser Squadron was waiting at Scapa ready to proceed on receipt of information, and if there was little likelihood of his being warned he proposed to send two light cruisers and four destroyers to search in the area mentioned. It was apparently for this purpose that two ships of the 4th Light Cruiser Squadron, the *Calliope* and *Royalist*, sailed with four destroyers on December 25 in accordance with orders issued by Admiral Sir Charles Madden, second in command.⁴ They met only three vessels and boarded one of them, the Norwegian S.S. *Askild*, with a cargo of iron ore, from Narvik to Hull,⁵ on December 27 at 5.30 a.m. They returned to Scapa on December 28 and did not go out again to intercept traffic for nearly a month.

21. High Sea Fleet Moving, December 27.—While these movements were in progress the Commander-in-Chief was informed on December 26 that it appeared possible that mines had been laid somewhere between lat. 56° N., and 56° 30' N., and long. 0° and 3° 30' E.,⁶ and the area was to be avoided till searched. He was to send the 3rd Sweeping Flotilla at once to carry out an exploratory sweep.⁷ The flotilla, then off the Tyne, received its orders early on the morning of December 26 but had to return to Rosyth for coal. They were ready the next day, December 27, and the Vice-Admiral, Battle Cruiser Force, at Rosyth,⁸ issued orders for six sweepers to proceed with two destroyers at 6 p.m. It sailed, however, with another task. At noon came in a German signal for the fleet flagship to take over wireless control—a sure sign of the High Sea Fleet being on the move. About an hour

¹ North-west point of Vaagsö Island.

² G.F. Orders and Memoranda, December 23 1916, in H.S.A. 224.

³ H.S. 318/485, 539.

⁴ Mentioned in *Calliope's* report, H.S. 784/221, G.F. Orders.

⁵ In 61° 40' N., 1° 27' E.

⁶ An extensive area, 120 miles long by 30 miles wide, 90 miles east from the Firth of Forth. This report seems to have been based only on the movements of *U.C.24* which possibly laid the minefield off Montrose discovered in February 1917. *U.76*, a large minelayer, also proceeded out on December 25 but returned with defects.

⁷ H.S. 318/751, 768, 808. The 3rd Fleet Sweeping Flotilla consisted of 12 paddle mine-sweepers and was based on Granton.

⁸ V.A.C., B.C.F., December 27, 2.19 p.m. H.S. 318/1137.

later came orders from Admiral Scheer for all ships¹ to proceed out of harbour at 2 a.m. and to assemble in the Roads ready to proceed to sea.

The High Sea Fleet was on the move, and at 2 p.m. the Admiralty informed the Commander-in-Chief that it was proceeding to Schillig Roads² that night to be ready for sailing, possibly as a preliminary to a Zeppelin Raid. At 5.10 p.m. the Admiralty cancelled the instructions for the 3rd Sweeping Flotilla, ordered the exit channels to be swept, and the Grand Fleet to be at two hours' notice from midnight.³ The 3rd Sweeping Flotilla went out accordingly to sweep the approaches to L and Queens Channel, and at 11.25 p.m.⁴ reported them clear.

Nothing further was received till 11 p.m., when the Commander-in-Chief was informed that directionals showed the *Regensburg* (2nd scouting group) and some destroyers in 55° 47' N., 6° 41' E.,⁵ at 5.55 p.m. apparently proceeding towards the Naze. As she might be escorting a raider he was to have a light cruiser squadron ready at one hour's notice.⁶

The night passed without further alarm, and at 7.51 a.m. the German Admiral ordered "ordinary state of readiness." His intentions remain obscure. The *Regensburg* (second leader of torpedo craft) went out with the 2nd, 6th and 3rd Destroyer Flotillas and may have been looking for British merchant ships, for from 5.45 a.m. (December 28) to 7.8 a.m., she was "without flotillas."⁷ About 8 a.m., she reported that she had advanced up to 57° 3' N., 3° 55' E., almost half way between Denmark and the Firth of Forth, and had seen nothing.⁸ By 8.20 a.m., she had "dismissed" her flotillas and the Commander-in-Chief, Grand Fleet was informed that the enemy had returned to port.⁹ On the British side the task of searching the suspected mine area¹⁰ was resumed. This time it was performed by eight destroyers with high speed sweeps escorted by two light cruisers of the 2nd Light Cruiser Squadron, the *Sydney* and *Melbourne*, with four screening destroyers. They left the anchorage¹¹ at 3.30 p.m. on Friday 29th and returned at

¹ 1st Battle Squadron, *Graudenz*, *Derfflinger*, *Moltke* and *Friedrich der Grosse*. I.D., Vol. 3023/98.

² At the mouth of the Jade.

³ H.S. 318/1114.

⁴ For L and Queens Channel, see H.W. VII, 98 and Plan 11.

⁵ About 30 miles north-west of Horns Reef.

⁶ H.S. 451. Admiralty to C-in-C., December 27, 2300.

⁷ No. 31232 in I.D., Vol. 951.

⁸ No. 31240.

⁹ H.S. 451.

¹⁰ 56° N. to 56° 30' N., and long. 0° to 3° 30' E. Admiralty telegram, December 25 1916.

¹¹ Presumably Rosyth. Orders in H.S.A. 341/351.

10 a.m. on December 31, having met and examined thirteen ships on their way. This ended the activities of the Grand Fleet for the year 1916.

22. British Minelaying, North Sea, December 1916.—The policy of mining the gaps in the British minefields in the Bight, decided on at the conference on September 13 1916, was not put into full force till the New Year, and during December only two British minefields were laid in the North Sea.

In the early morning of December 3, submarine *E.45* laid a field of 20 mines about six miles north-west of Nordeney.¹ Owing to compass defects she ran aground on Terschelling Bank on her way home at 2.45 p.m. December 3 and remained ashore for 11 hours. She was fortunate enough to get off without damage and got safely back to Harwich. Her mines were discovered on December 20, and the 1st German and 3rd Minesweeping Flotillas were hard at work on them up to January 1. They were apparently all swept up by January 18.²

The next British minefield was laid by the *Abdiel* 25 miles further north in a position about 30 miles north of Juist³ on the night of December 29–30, 1916. It consisted of 80 mines, laid in two legs, each about four miles long with the angle pointing towards the Jade. Her mines were discovered the same day in 54° 9' N., 7° 5' E., at 2.50 p.m., and some of them seem to have been laid some nine miles further west, for the German barrier-breaker, *Franken*, struck one about 3 p.m. that day⁴ and sank, and the next morning, January 10, a mile or so south of the spot *U.57* touched the mooring cable of a mine and narrowly escaped destruction.⁵ The area remained in the German "Danger from mines" signal up to February 18.

This was the last minefield laid in the Bight in 1916, and the *Abdiel* got safely back, December 31, sighting nothing but a single British trawler on her way home.⁶

¹ Field 134 in Leith's History, centre 53° 46' N., 70° E.

² They were found in 124 epsilon (53° 48' N., 7° 5' E.) and this area was included in the German "Danger from mines" signal up to January 18 1917 (I.D. 31887).

³ Field 131 in Captain Lockhart Leith, centre in 54° 12½' N., 7° E.

⁴ In 104 epsilon (54° 16' N., 6° 46' W.).

⁵ War Diary, North Sea, January 10, 0503. In 104 epsilon (54° 15' N., 6° 47' E.).

⁶ For *Abdiel's* orders and report, see Minelaying Operations, H.S. 838/27, 266 (Operation M.L.2). For German side, see Record by Lieut. Haggard, R.N., I.D., Vol. 471.

CHAPTER II.

THE ANTI-SUBMARINE SITUATION.

23. Protection of Trade, December 1916.—The principal task facing Admiral Jellicoe when he came to Whitehall was the defeat of the submarine—a task already growing urgent and beginning to overshadow everything else.

The system then in vogue was not sufficient to cope with the new menace. It had sufficed for the earlier years of the war, and its exponents could point with justifiable satisfaction to the small list of casualties among munition ships, fleet auxiliaries and transports, but it was no longer equal to the demands of the time. It dealt only with British ships, and even to British ships only a limited amount of information was given. Once a ship left port it was difficult to divert it, for the master was not allowed to have the new list of confidential routes issued in November 1916.¹

Up to the end of 1916, the Admiralty, so far as the ordinary British merchantman was concerned, trusted chiefly to a system of dispersion, of crossing dangerous areas in dark hours, of leaving ports at dusk and making them at dawn. The system had sufficed in 1915 and 1916, and its merits were presented in a paper² prepared by the Trade Division in anticipation of the Commander-in-Chief's visit to the Admiralty on November 3 1916.

The Commander-in-Chief had expressed grave anxiety at the new outbreak of submarine warfare, and the paper prepared in the Trade Division defended the policy in force. It pointed out "that the policy followed, which has been in force since the outbreak of war, has been that of the dispersal of vessels a long way from the main trade routes. Vessels are instructed to leave ports at or just after darkness, and similarly to make ports at dawn so as to secure that they cross the dangerous areas during the dark hours.⁴ Each individual vessel receives special instructions from an officer specially appointed for the purpose . . . In view of the increased number of patrol vessels . . . it is now found possible to direct trade along certain well-defined lines, closely patrolled and where possible close to the shore.

"A careful record is kept of the movements of all enemy submarines and immediately on the information being received in the Admiralty of the whereabouts of any submarine, her future movements are estimated and telegrams are sent out ordering either

¹ M.09748 of November 7 1916, in Case 504, Vol. I.

² A.W.S., T.D. 3026 at end of M.09668/16.

³ Admiral Sir John Jellicoe.

⁴ If submarines were working in the Channel, off Ushant and in the south-west approach, at the same time this might not always be possible.

the diversion of traffic to alternative routes, or if all routes appear to be threatened, the traffic is suspended until the submarine has been accounted for or has changed her area of operations.

"This work of diverting outward bound traffic is going on constantly,¹ and by means of this diversion and by the policy of passing vessels through possible danger areas during dark hours the trade of the country is kept going so far as possible uninterruptedly."

The paper ended with a table of "Arrivals and sailings of British overseas steamers at or from United Kingdom ports over 300 tons net excluding coasters," which showed that from October 17–31 402 British steamers had arrived, 321 had sailed, and 10 had been sunk.

The paper said nothing of the suggestions from the big Channel commands who were in close touch with the problem and who were urging in October and November² the adoption of "well-defined lines closely patrolled."

A weakness of the system lay in the necessary standard of secrecy imposed. Only a portion of the information at the Admiralty could be issued to the coastal commands.³ Information as to enemy submarines obtained from intercepts was not always immediately available even for the big commands at Portsmouth, Plymouth, and Queenstown.

Nor could the entire suspension of traffic be regarded as a solution of the problem, for this amounted virtually to a condition of blockade, a view clearly indicated in a message from the War Office on December 21 pointing out that all troop movements to the Mediterranean and India had been suspended since December 1, and asking when they were to be resumed.⁴

There was another serious weakness in the system. The diversion of traffic to alternative routes applied only to ships leaving port. Once ships had left port there was no really effective procedure for controlling them.

24. Diversion of Ships at Sea.—An illuminating ray is thrown on this point by a letter hailing from the Bristol Channel which, though one of the smallest auxiliary patrol areas,⁵ included in its bounds the large ports of Swansea and Cardiff.

¹ The order for diversion went only to Shipping Intelligence Officers and not to ships that had sailed.

² See recommendations of Admirals Bayly (Queenstown), Bethell (Devonport), Colville (Portsmouth) and Bacon (Dover) in Home Waters, VII, S.198.

³ Positions of submarines obtained from intercepts were not entered on the charts of the Intelligence Division, Enemy Submarines Section (E.1) until later.

⁴ This action was taken on account of the escape of raiders and not of submarines, but the principle was the same.

⁵ Bristol Channel area: 6 trawlers, 12 motor launches.

Commander Harold E. Browne, the Senior Naval Officer at Swansea, wrote on November 12¹ to ask if two of his commissioned officers² might be supplied with a copy of the Routes in Western Home Waters (A.L. M.09748/16 of November 7 1916), containing the new confidential routes, so that it might be possible to divert ships to new routes by a wireless message from Lands End to Trevoze Head. But this list of routes was supplied at the time only to Shipping Intelligence Officers at the big ports. It was not allowed to be given to masters of ships or to any auxiliary patrol vessel, and in the Queenstown area only to the sloops. The result was obvious. Once a ship had left port she could not be diverted from one route to another, for neither the ship nor the trawler stopping her had details of the new route, and all the latter could do was to send her into port (with a chance of being sunk on the way) to get it from a Shipping Intelligence Officer.

The comments on the letter seem to indicate that the difficulties of local commands were not always fully appreciated. Operations Division regarded the suggestion as "directly opposed to Admiralty principles with regard to issuing copies of route orders to essential officers only" and with regard to "route orders not to be promulgated by wireless."³

The proposal was not approved,⁴ but the Director of Trade Division who was closely in touch with the problem evidently favoured the suggestion, for he pointed out that cases frequently occurred of the necessity of sudden diversion, and he asked that reports might be called for.⁵

An Admiralty letter went out accordingly to Queenstown, Milford Haven, Devonport and Portsmouth, to say that there were disadvantages in promulgating such information by wireless, and asking for a report as to how this could best be avoided and what arrangements for promulgating the information were then in force.

25. Opinion of Commands.—The Admiralty's expressed disapproval, however, of promulgating information by wireless tended to restrict the scope of the answers.

Vice-Admiral Sir Lewis Bayly, Queenstown, replied that his auxiliary patrol vessels closed a War Signal Station once a day and passed information to other patrols by visual signals. Orders for diverting homeward-bound ships were passed to sloops, who warned them when met.⁶

¹ M.010015/16, titled X.9351, 1916, in Vice-Admiral Dare's letter of November 12 1916.

² *i.e.*, in command of his trawlers.

³ Minute November 16 1916 in M.010015/16.

⁴ A.L. M.010015/16 of December 17 1916.

⁵ Minute November 27 1916.

⁶ The report did not mention the number met. V.A. Queenstown, December 19 1916.

Milford Haven, Vice-Admiral Charles Dare,¹ had already been expressly informed that Commander Browne's proposals were unacceptable, and thought that the only efficient method was to order ships into port for further orders, and suggested a code group for doing so.

Commander-in-Chief, Devonport, Admiral Hon. Sir Alex. Bethell,² stated that when a route was closed, instructions were sent by drifter to the auxiliary vessels on patrol to state which vessels were to be sent into port. These arrangements were not entirely satisfactory. No means of communicating instructions to patrol vessels could take the place of wireless, but he suggested that as regards the suspension and release of traffic on certain routes, orders might be issued by wireless by enlarging the scope of the war warning signals for patrol vessels.

Admiral Hon. Sir Stanley Colville, Portsmouth, recommended a system by which the numbers of the routes in force should be given to patrol vessels, and that merchant vessels should hoist the number of the route given them which the patrol vessel should repeat or negative according as it was open or closed.

Trade Division concurred with Devonport's proposal. Other departments concurred with Trade Division and the Admiralty sent out a letter deciding that except in the Queenstown area it was not practicable for a change of route to be communicated to vessels by the Auxiliary Patrol. It would therefore be necessary to order traffic into harbour to get new instructions and that orders to send it in could be sent by wireless by means of a series of new groups on the lines of war warning signals.³

These signals, however, did not apply to neutral vessels which were therefore free to sail for dangerous areas unless special instructions were given for particular occasions.

The Commander-in-Chief, Devonport, pointed out that he anticipated considerable difficulty in the execution of the new instructions, as a ship might be sent into St. Helens by a Portsmouth vessel and might be ordered into port again in the Devonport area, for the patrol vessel in the latter would not know if she had the correct route. He proposed that ships passing down Channel should put into a western port for the latest information.⁴

By March 7, all the divisions concerned had concurred in the draft of a letter to say that in the case of a change of route for west-bound traffic, ships passing down Channel should only be ordered into a western port.⁵

¹ V.A. Milford Haven, December 21 1916.

² C.-in-C. Devonport, December 23 1916.

³ A.L. M.011459 of February 8 1917.

⁴ Devonport, February 15 1917.

⁵ M.01891/17.

The correspondence is interesting as a sidelight on the procedure at the end of 1916. A system under which a change of route could only be effected by sending a ship into port for fresh instructions did not suffice for the growing necessities of the time.

26. Patrolled Lane in the Channel.—The first step taken by Admiral Jellicoe when he came to the Admiralty in December 1916 was the institution of the Anti-Submarine Division as a single centre whose special business it was to co-ordinate the efforts directed against the submarine and to deal with the problem as a whole.

The next three months may be regarded as a period of preparation and reorganisation for a great train of work, experimental and constructional, including the development of the hydrophone, and the use of the depth charge and mine on a greatly extended scale.

In the sphere of operations the principal measures adopted were the reorganisation of the Auxiliary Patrol and the establishment of the French Coal Trade Convoy¹ which was to prove the forerunner of the Scandinavian Convoy (April 1917) and the general Convoy System in June. One of the difficulties which the new Division had to face was the task of taking over work previously performed by other divisions.

When the idea of the Division was mooted, objection had been taken to its having anything to do with controlling the movements of ships, which was regarded as the task of the Operations and the Trade Divisions, and it was pointed out that the officers responsible for it had had two years' experience of their work.² The Division, however, soon proved the necessity of its independent existence and quickly won a position of its own.

Its first task was to introduce a measure of uniformity into the working of the Auxiliary Patrol and a report³ was called for from the Auxiliary Patrol commands in the Channel where the danger was greatest.

Conclusive statistical evidence showed the advantages of merchant shipping hugging the coast, and it was proposed to introduce a "lane" of traffic from the Scilly Islands to the Thames with a continuous line of trawler patrols three to five miles apart. It was suggested that the trawlers should keep the sea for 12 days with six days in harbour, that the system of escorting special vessels

¹ The official name was "Controlled Sailing."

² Minute, Chief of War Staff, November 10 1916, in reply to 4th S.L. in M.011623/16.

³ M.011139 of December 19, 1916 with replies in X.11012/1917; Scilly Islands, Penzance, Falmouth, C.-in-C. Devonport, Commodore Portland, Poole (net drifters), C.-in-C. Portsmouth, Newhaven and Vice-Admiral Dover. (Box, S.W. Approach, 1916, II.) Reports of other areas are in Box, Aux. Patrol Organisation.

should cease and that as far as possible the patrol trawlers should keep the Channel swept. The answers began to come in on December 21.

27. The "Patrolled Lane."—The Commands were all in favour of what may be called a patrolled lane; but most of them wished the patrol trawlers and minesweepers to be kept separate,¹ and there was fairly general agreement that trawlers could not stay out for more than six days with three days in.²

The strengths of the various commands were as follows:—

	Yachts.	Armed Trawlers.	Minesweeping Trawlers.
Area XI, ³ Dover ..	2	21	57 ⁴
Area XII, Portsmouth	6	36	12
Area XIII Portland ..	3	12	12
Area XIV, Falmouth..	4	23	33
Total ..	15	92	114 = 221

These figures seemed to supply an ample force for a "lane" approximately 330 miles long, which with trawlers 5 miles apart would require 66, and allowing one-third for reliefs, 99. Actually, however, several had to be deducted for other purposes. Thus from Portsmouth⁵ there had to be deducted six trawlers, employed continuously on the Southampton-Havre transport route, and four of the 12 trawlers at Newhaven, employed constantly in escorting ammunition ships.

To supply the numbers required for the Channel, orders were sent on December 26 for 30 trawlers (i.e., five units) to be transferred from other areas as follows:—From Area I, Stornoway, six to Penzance; from Area IV, Cromarty, six to Portsmouth; from Areas VI and VII, Granton, six to Falmouth; from Area XI, Dover, 12 to Portland.⁶

Orders for the new Patrolled Lane to be established went out finally on January 21 1917.⁷ It was to run from Trevoze Head, on the Cornish Coast, to the Scillies; from the Scillies to the

¹ Including Commodore Harbord (Portland), Commodore Denison (Falmouth) and C.-in-C. Devonport.

² At Portsmouth, however, twelve days at sea and six in harbour had been found most satisfactory. Flag Captain in C.-in-C., December 14 1916 in M.011222/16.

³ For limits of areas, see map in Auxiliary Patrol, Positions and Movements, December 1916.

⁴ Six lent to Portsmouth.

⁵ For full details as to employment of Portsmouth Auxiliary Patrol, see report by Flag Captain Francis A. Marten, December 19 1916 in M.011222/16.

⁶ M.011359/16 in X.9175/1916.

⁷ M.0543/17 in X.11012/17.

Runnelstone (Lands End); thence to the Lizard, Start Point, Portland Bill, and on to St. Catherines, three miles S., Owers and Royal Sovereign.

Minesweeping was to remain a separate organisation so far as sweeping the entrances of harbours was concerned, and for any other work was to be dealt with as necessary by the Senior Naval Officers concerned.

In theory the inner boundary of the new lane was the shore and the outer was to consist of a continuous line of patrol vessels extending from headland to headland. But even with the reinforcements given them, the Auxiliary Patrols in the Channel were hard pressed to maintain the "lane," in addition to the numerous other services they were called upon to perform, such as the escort of important oilers and ammunition ships—for the orders specifically stated that this service would not be abolished—the routine sweeping and the hunting of submarines.

The "lane" seems, however, to have fulfilled its purpose for a time. In November and December, before its introduction, 6 per cent. of the total number of ships sunk by submarines were sunk within 5 miles of the South Coast of England. In January this number fell to 2½ per cent., though it rose again with the outbreak of unrestricted warfare to 7½ per cent. in February, and 5½ per cent. in March 1917.

28. French Coal Trade.—The effect of German submarine activity was being severely felt in the French coal trade. To maintain the war France required to import at least 1½ million tons¹ monthly, which was furnished largely by the coalfields of Scotland, South Wales and the Tyne. About half of the colliers were neutral ships, mostly Norwegian, and did not receive either the special routes or the warnings which helped to save British and Allied vessels.² Nor could they be detained if they wished to sail.

In December, as in November, Norwegian vessels were again the principal sufferers. In the Channel 14 were sunk, of which 10 were carrying coal to France. The detention of British ships (British and Allied colliers were held up for 20 days in November and December 1916), made the position worse, and the position, as the French Ministry of Marine pointed out, closely resembled that of a blockade.³ The French had already laid down in September 1916

¹ August 1–18 1916, 1,164,555 tons; September 1–18, 1,091,056 tons; October 1–18, 1,079,584; November 1–18, 918,786 tons. (Figures from French Coal Committee.)

² A proposal had been made to the Norwegian Government that it should give its vessels the same instructions as those given to British ships, but this was only applicable to ships sailing from Norwegian ports.

³ See also War Office, December 19 1916, in Box, French Coal Trade, saying that no troop transports have been allowed to sail for India, South Africa or Mediterranean since December 1 and asking when the embargo is likely to end. This order was due, however, to the *Moewe's* raid and not to submarines.

three routes for crossing the Channel, viz., Boulogne to Folkestone, Cherbourg to Isle of Wight, and Ushant to Wolf Rock, and had divided their Coast into 14 sections from Dunkirk to Bordeaux.¹

Arrangements were now made between the Admiralty and the French Ministry of Marine to co-ordinate the issue of orders for the suspension of traffic,² and were followed by the preparation by the French Chief of the Staff and Captain John Kelly, Naval Attaché at Paris, of a book of French Trade Routes³ corresponding to the British issue of November 1916.

But while these routes were still under discussion, the coal shortage in France was becoming acute, and on December 28 the Committee for the Supply of Coal to France and Italy addressed a letter to the Admiralty stating as its unanimous opinion that "arrangements ought to be made for convoying vessels engaged in the coal trade through the danger zone."⁴

The Director of the Trade Division was not in favour of the proposal, being of opinion that the only satisfactory solution to the problem was defensive armament and a close adherence to routes.

29. Conference, French Coal Trade, January 2 1917.—But on the heels of this letter suddenly appeared Commandant Vandier, despatched by the French Chief of the Staff, Admiral de Bon, to discuss the question of protecting the coal trade.⁵

Commandant Vandier pressed for the abandonment of the system of detaining traffic. In 63 days, that is from October 29 to December 31 1916, traffic had been held up, he stated, on account of submarines alone and not of mines, as follows:—

Bristol to Bay ports, for unarmed vessels, 22 days, for armed vessels 14 days.

Bristol to Channel ports, for unarmed vessels 16 days, for armed vessels 3 days.

Dover to Bay ports, for unarmed vessels 28 days, for armed vessels 14 days.

which amounted to a blockade effective for 30 per cent. to 40 per cent. of the period.

¹ État-Major-General, Paris, September 29 1916, signed De Bon in Foreign Consul, September 29 1916 (French Coal Trade).

² Ministère de la Marine, December 5 1916, and Liaison Officer, Paris, to Chief of Staff for D.T.D., December 4 1916, in Admiralty, December 9 1916 (French Coal Trade).

³ D.T.D., November 9 1916, in French Trade Route Proposals, Admiralty, December 9 1916, with printed book, Routes du Commerce Français, ready for issue, March 8 1917.

⁴ Secretary (R. M. Stewart) India House, Kingsway, to Secretary, Admiralty, December 28 1916.

⁵ Telegram Marine, Paris, December 28 1916, 2155.

He presented a carefully prepared scheme of convoy, and on January 2 1917, a Conference¹ was held at the Admiralty to consider it. It was based on an imposing array of statistics,² which showed about 800 colliers (of which one half were neutrals) sailing from England in November for French ports, of which 580³ came from west coast and 240 from east coast ports.

It was proposed to assemble them in convoys as follows:— at Swansea, one convoy of nine ships per day to proceed to Brest, ports in the Bay and the Mediterranean; at Swansea, a second convoy of ships for all Channel ports would proceed to Portland, where ships for all ports from Fécamp to St. Malo would cross to Cherbourg, and ships for Boulogne would go on to the Downs; in the Downs the east coast ships and the small stream from the west would assemble, and a convoy of eight ships would proceed every night to Boulogne. To escort these convoys across there would be required:—

From:—

Swansea to Brest	3
Portland to Cherbourg	3
Dover to Boulogne	3

in addition to escorts to take them along the coast.⁴

The Admiralty did not like the word convoy which it thought would embarrass neutral ships and suggested the term "controlled sailing" instead. The final report drawn up by Commander Reginald Henderson went in. Operations and Trade Divisions concurred. The Chief of the War Staff was anxious to help the French⁵ and this was the beginning of the French Coal Trade whose arrangements, were approved by the First Sea Lord on January 22 1917,⁶ and were ready to be put into force when the storm of the

¹ Commandant Vandier, Captain H. W. Grant (D.O.D.), Commander Reginald G. Henderson (D.A.S.D.), Commander Thomas Fisher (D.T.D.), Mr. A. E. Faulknor (D. of T.).

² The French figures gave an average daily loss of three neutral ships, or 90 a month, apparently referring to French coal trade. The figure was excessive. The total losses in neutral ships in Home Waters and the Bay in November 1916 were 43, of which perhaps one-half (say, 21) were colliers, and in December 1916, 36.

³ In a scheme of organisation (Pièce 3) the figures are as follows: from west coast; Greenock, 47; Swansea, 210; Cardiff, 326; making total of 583 (not 580). Of these 263 were to proceed to Brest and 320 to Portland; at Portland 276 were to pass to Cherbourg, leaving 44 to proceed to the Downs, where they were to join the east coasters. The east coasters came from Newcastle, 179; from Hull, 61; total, 240, which with the 44 from Portland made 286 (*sic*), (apparently miscript for 284) to pass from the Downs to Boulogne.

⁴ For the French coast, escorts were estimated at 24.

⁵ Minute January 10 1917. The whole report is in M.0370/17 in Admiralty, December 30 1916, (Box, French Coal Trade).

⁶ A.L. M.0729, January 23 1917, in A.2415/1917 (French Coal Trade), also in Case 637, Vol. I, French Coal Trade.

new submarine campaign broke. The first convoy sailed from Mount's Bay to Brest on February 10 1917¹ and is of special interest as a forerunner of the greater convoy system of May 1917.

THE NEED FOR SMALL CRAFT.

30. Anti-Submarine Craft, December 1916.—One of the principal difficulties in dealing with the submarines was the lack of destroyers and suitable craft. The armed trawler was a useful little vessel which was able to drive the submarine down but was too slow to conduct a rapaid attack, and the only effective vessels for this purpose were P-boats, sloops and destroyers.²

P-boats were the outcome of a design put forward by the Director of Naval Construction³ in April 1915. They were ships of 573 tons, of 20 knots full speed carrying one 4-in., one 2-pdr. pom-pom and two 14-in. tubes.⁴ Fifty-four had been ordered up to the end of 1916, at which time 25 had been delivered and were in commission, chiefly at the Nore and Dover.

Sloops were an earlier design intended for miscellaneous work and minesweeping. They had a displacement of about 1,250 tons, a speed of about 17 knots and carried at first two 12-pdrs., and later two 4-in. guns. The first order for twelve went out on January 1 1915, and as the details had been discussed very carefully with all shipbuilders and the officials of Lloyds in order to approach as nearly as possible to mercantile practice, they were built very rapidly—in from 19 to 21 weeks. By the end of 1916, 84 had been ordered and delivered at an average cost of some £67,000 each. They proved to be remarkably good sea-boats and had it been possible to double the original orders the position at the end of 1916 would have been greatly eased. They were employed chiefly for minesweeping and in the Mediterranean and at Queenstown where Admiral Bayley had 19 in the First Sloop Flotilla in December 1916.

31. Destroyer Situation, December 1916.—The anti-submarine question was closely related to the destroyer situation which in its turn at the end of 1916, was largely dictated by the immediate necessity of reinforcing the Dover Patrol against the recurring danger of destroyer raids and by the demand for destroyers to hunt submarines.

¹ From a paper on history of French Coal Trade—Mounts Bay to Brest (probably written by Lieut.-Cdr. David Blair, R.N.R.). The authorities for the French Coal Trade are in French Coal Trade files and in Case 637.

² Motor launches, of which there were 550, were not suitable for patrol work in winter. See Flag Captain, Portsmouth's Report, December 12 1916, in M.011222/16.

³ E. H. Tennyson d'Eyncourt.

⁴ Records of Warship Construction, D.N.C., 1918.

The adequate protection of the Grand Fleet was the first consideration, but in Home Waters, the convoy of the Dutch traffic, the escort of troop transports in the Channel and of important supply ships along the coast fell on destroyers, which were often despatched, too, at very short notice to areas where a submarine was sighted.

In the summer of 1916, the destroyer force at Dover consisted of the 6th Flotilla of 24 old destroyers, which was reinforced by a division periodically detached from Harwich. But after the raid on Dover Straits on October 27 1916, practically the whole of the 9th Flotilla was diverted from Harwich to Dover, as the First Sea Lord (Sir Henry Jackson) considered the situation could only be met by two flotillas patrolling the area every night in close touch with each other, with a third flotilla as a relief. Destroyers were not available, however, to supply this force and the Admiralty and Dover could only make the most of what they had.¹

Five of the best destroyers of the 4th Flotilla, based on the Humber since Jutland, were sent down to Dover, and Vice-Admiral Bacon was also promised two flotilla leaders, the *Broke* and the *Faulknor*² as soon as the *Seymour* and *Saumarez* were ready.

After the appearance of six German destroyers off Ramsgate on November 23 and the report of another on December 22 the *Nimrod*, with eight destroyers, was hurried from Harwich to Dunkirk, and arrived on December 23,³ making a total of no less than two flotilla leaders and 20 destroyers from Harwich alone. This left Harwich with barely eight destroyers⁴ actually available, and on December 16, when an enemy movement was suspected from Dunkirk, the Commander-in-Chief was directed to detail a flotilla leader and a half flotilla to be ready to sail for Harwich. The order came to sail, and the leader *Grenville*, with eight destroyers of the 15th Flotilla left Scapa on December 18 and arrived at Harwich on December 20.⁵ But for this timely support from Scapa it would have been barely possible to continue the Dutch traffic patrol.

32. Destroyers in The Channel, December 1916.—The Channel was also crying for destroyers, and on November 14 it was decided that after six of the 4th Flotilla had gone to Dover, the remaining ten should go to the Commander-in-Chief, Portsmouth, to work anywhere in the Channel with the specific task of hunting submarines.⁶ There were already six of them there, and on November 21 the *Active*, with three more, arrived.

¹ M.09546/16 and M.09766/16.

² Arrived on December 7 and 31 respectively.

³ Returned January 1 and came back on January 18, only for dark nights.

⁴ Some eleven under repair on December 23.

⁵ Returned to Scapa, January 3.

⁶ M.09963/16.

On December 31 1916 there were in the Channel Command :—

Portsmouth :—

Anti-submarine work	10	(4th Flotilla).
Escort Flotilla	13 ¹	
Port Defence	8	

Devonport :—

2nd Flotilla (escort work)	14	
Port Defence	6	

Total 51

The Grand Fleet was supposed to have a hundred destroyers always available, and in December 1916 had nine flotilla leaders and 96 destroyers. As new boats became available, the older boats were sent to other areas, but up to November 1916 no destroyers had been taken from the Grand Fleet without being replaced.

In November, however, the Commander-in-Chief, Admiral Sir John Jellicoe, deeply impressed with the growing menace of the submarine, offered to divert destroyers from the Grand Fleet for an organised attack on submarines, even if it involved demobilising a battle squadron for a time.²

It was on this suggestion that the Admiralty in November detached a Grand Fleet division to the Humber in order to set free the 4th Flotilla there for Dover and the Channel, and in December despatched the *Grenville* and eight destroyers to reinforce Harwich for a time. This reacted in its turn on the Grand Fleet, and on January 26 1917, the Commander-in-Chief, Admiral Sir David Beatty, reported that he was short of some 18 destroyers—

At Harwich	5	
At Devonport	4	
At Humber	4	
At Belfast	4	(escorting floating dock).

All of these were still absent at the end of January though the Commander-in-Chief was making anxious enquiries for their return.³

The movements southward to meet the destroyer situation there may be summarised as follows :—

October 27 1916, from Harwich to Dover, one flotilla leader and nine destroyers (9th Flotilla).

October 22–November 21 1916, from Humber to Channel, ten destroyers (4th Flotilla).

November 21 1916, from Humber to Dover, five destroyers (4th Flotilla).

December 12 1916, from Grand Fleet to Dover, two flotilla leaders.

¹ River class.

² M.011623/16.

³ H.S. 352/922, 353/243, 301, 512. H.S. 354/638.

December 18 1916, from Grand Fleet to Harwich, one leader, eight destroyers.

December 22 1916, from Harwich to Dunkirk, eight destroyers (10th Flotilla).

January 1917, from Grand Fleet to Channel, four destroyers.

Of 284 destroyers in Home Waters on December 31 1916,* there were:—

		<i>Per cent.</i>
With the Grand Fleet at Scapa and		
Rosyth	105	37
At Harwich	30	10.5
At Dover	47	16.5
In the Humber	20	7
In the Channel: Portsmouth, 23;		
Devonport, 14	37	13
Port Defence: Scapa, Cromarty,		
Forth, Nore	31	11
Port Defence: Portsmouth and		
Devonport	14	5
Total	284	100

or with the Grand Fleet 37 per cent., and in Channel and at Dover 29.5 per cent. (or including the Port Defence Flotilla at Portsmouth and Plymouth, 34.5 per cent.).

Such was the destroyer position at the end of the year when the submarine menace was beginning to loom large.

CHAPTER III.

GERMAN SUBMARINES.

33. **Shipping Losses, December 1916.**—The measures taken in December required time to take effect, but it may have been partly due to their initial impulse that the total losses by submarines in the month sank from 299,024 tons (in November) to 263,245. The reduction was chiefly in British tonnage as follows:—

		<i>Tonnage sunk by Submarines.</i>		
		<i>November.</i>	<i>December.</i>	<i>Reduction.</i>
				<i>Per cent.</i>
British	144,837	109,945	—	24
Fishing	1,474	224	—	—
Allies	58,416	67,249	+	11
Neutral	94,297	85,827	—	10
	299,024	263,245	—	12

* From Positions and Movements, December 31 1916.

The reduction in the British figures (34,892 tons) took place, again, chiefly in the Mediterranean, where the losses in November were 14 ships, 99,536 tons, and in December, 12 ships, 60,200 tons, a difference of 39,336 tons. This area still remained responsible, however, for over half the losses,¹ as follows—

British Merchant Ship Losses, December 1–31 1916.

		<i>Submarine.</i>	<i>Per cent.</i>	<i>Mines.</i>
North Sea	—	—	8	13,606
Channel to 7° W. 17 ²	37,809	34.3	2	5,306
Atlantic	6	10,482	9.5	—
Mediterranean .. 12	60,210	55.0	—	—
Irish Sea	—	—	3 ³	1,582
Ireland, South .. 1	1,445	1.2	—	—
Total	36	109,946	13	20,494

In the Atlantic, the *Moewe* sank 10 ships of 51,999 tons, making a total loss in British Merchant Vessels of 59 ships of 182,439 tons, of which there were sunk by submarines 60 per cent., mines 11.4 per cent., raiders 28.6 per cent.

The very considerable reduction in the loss by submarines and mines (39,509 tons) was more than counterbalanced by the *Moewe's* work resulting in a total increase over the November losses of 12,490 tons.⁴

In Home Waters the British losses were only 18 ships of 39,254 tons of which only 10 were ships of any size. These figures might well support the idea that so far as British shipping was concerned the danger was well in hand and that the system of patrols, routeing and defensive armament was able to cope with the situation. Actually, however, the principal cause of immunity lay in the temporary inactivity of the Bight submarines; with the exception of *U.B.23*, which was off the Fastnet for a few days (December 2–4), and *U.82*, which arrived there about December 26, *not a single submarine was working off Ireland during the month.* The big "U" boats of the High Sea Fleet were confining themselves almost entirely to the North Sea, the Arctic, and the Coast of Spain. (Plan 9.)

¹ Total British vessels lost by submarine in December: 36 ships, 109,946 tons; in Mediterranean: 12 ships, 60,200 tons, or 55 per cent.

² In table in Section 58, the British S.S. *Harpalus*, 1,445 tons (Ireland, S.W.) has been included.

³ Includes *Sea Fisher*, 297 tons, lost on voyage from Waterford to Barry, not in Merchant Shipping (Losses) Return.

⁴ Cf. H.W. VII, p. 237.

34. **Channel Submarines, December.** (Plan 7 and 8).—The main area of attack in December was the Channel, where twelve submarines* were operating in the following areas during the month:—

U.B.18, November 22–December 5, Channel, West: 11 steamships, eight sailing vessels, 12,298 tons.

U.B.23, November 26–December 10, Channel and Ireland, South (Fastnet): 9,156 tons.

U.B.37, November 26–December 9, Channel, West, and Ushant: three steamships, one sailing vessel, 7,147 tons.

U.C.21, November 26–December 12, Channel; mines, Dungeness, Royal Sovereign, Owers, Nab and Needles: 11 steamships, six sailing vessels, 22,091 tons.

U.C.19, November 27, to lay mines Boulogne and Havre, then operate Channel, West: *Did not return*.

U.B.29, November 27, to Channel, West: *Did not return*.

U.B.39, November 27–December 11, Channel, West, and Ushant: 12 steamships, three sailing vessels, 22,291 tons.

U.C.18, December 10–24, Ushant and Bay; mines, Brst, Lorient, St. Nazaire.

U.B.38, December 11–22, Channel and Ushant.

U.C.46, December 19–January 3, Channel, West, and Bristol Channel; mines, Swansea and Dartmouth.

U.C.17, December 14–30, Channel; mines, Portland, Plymouth, Falmouth.

U.C.16, December 20–27, Channel; mines, Royal Sovereign, Owers.

U.B.18, December 27–January 9, Scillies and Channel Islands.

U.B.39, December 27–January 11, Ushant and the Bay.

Three submarines also passed through the Channel on passage to the Mediterranean:—

U.C.35, December 7–9; *U.C.34*, December 18–20; and *U.C.37*, December 23–25.

U.70 also operated in the Channel and off Ushant on December 18 on her way to Finisterre and the Coast of Spain. *U.79*, too, leaving the Bight on December 27, passed through the Channel to the same area, and *U.82*, which left the Bight on December 20, went north about to operate off the South of Ireland and the Channel entrance.

35. “*U.B.18*,” “*Q.9*” (December 2) and “*Llewellyn*” (December 4).—*U.B.18*, under the command of Lieutenant Lafrenz, who had taken the boat over from the famous Steinbrinck, operated first off Cape Barfleur and the Channel Islands; then, on November 30,

* Gayer iv.

made a short cast up the Cornish coast. Her total sinkage on the cruise was 11 steamers and eight sailing vessels, altogether about 12,298 tons, chiefly neutrals. She was thrice attacked. On November 24, after stopping the Norwegian S.S. *Oifjeld* off Dieppe (11.20 a.m., 50° N., 0° 43' E.), she was attacked by two French patrol boats,¹ the *Caille* and *Marie*, but had time to torpedo the *Oifjeld* before she was driven down. She was to have another unpleasant encounter a week later.

Her objective was evidently the French coal trade, for on November 30 she was off Trevose Head (Cornwall) playing havoc with the neutral ships carrying coal to France, and sinking three steamers and three French sailing vessels. Moving up the coast, on December 1 she sank the French sailing vessel *St. Joseph* (182 tons), two British fishing smacks and another French sailing vessel *Indiana* (178 tons).

On December 2, on her way home, she met at 9.30 a.m., off the Longships (49° 38' N., 5° 38' W.), a Norwegian S.S. *Skjoldulf* (600 tons), with a cargo of coal from Cardiff. She sank her with bombs and was towing the boats towards the Lizard in a rough sea when she sighted a three-masted schooner on a westerly course. This was the *Mitchell*, *Q.9*,² Lieutenant M. Armstrong, R.N.R. On December 2, 10.30 a.m., the latter was on a W.N.W. course off Land's End (49° 46' N., 5° 30' W.), when she sighted a submarine 1,500 yards off, two points on the starboard bow. The signal to stop was flying and the submarine sent a shot over her at 1,000 yards. But *U.B.18*, suspicious of the big gun structure aft, was all ready to submerge, and when the armed trawler *Rosetta* came in sight, she commenced to go down. *Q.9* opened fire at 1,000 yards and the fourth 6-pdr. shot appeared to hit the base of the conning tower. The submarine seemed to list to port and sink. What appeared to be a second submarine, but was actually *U.B.18*,³ came up and fired a torpedo, which was avoided by the use of helm and just missed the rudder. The work of the “*Q*” ships was dangerous and laborious. It was considered that the submarine had been sunk; the ship received an award of £1,000, and the Commanding Officer a D.S.O.⁴ *U.B.18* meanwhile went on, chastened but undamaged. On December 3, at 8 a.m., off Guernsey she sank the Danish S.S. *Yrsa* (844 tons), on her way from Spain to London with a cargo of fruit and lead. Two small British sailing vessels close by, the *Seeker* (74 tons) and the *Mizpah* (57 tons) suffered the same fate, but another nasty attack was waiting for her in the Straits of Dover.

¹ Gayer 4/64.

² 195 tons, one 12-pdr., two 6-pdr.

³ “11.40 a.m. Torpedo shot, distance 400 m., angle 80°, miss.” *U.B.18*, *Kriegstagebuch*.

⁴ M.010934/16. In I.D. it was thought that the torpedo was fired by the submarine that had been attacked.

The destroyer *Llewellyn*, Lieutenant-Commander G. S. Fleetwood Nash, was patrolling there on the night of December 4. The moon was shining bright and clear when at 9.45 p.m., about eight miles south-eastward of the South Goodwin ($51^{\circ} 8' \text{ N.}, 1^{\circ} 40' \text{ E.}$), she sighted a submarine, three points on the bow, about 300 yards away. She increased to full speed, but a steep sea on the quarter made the helm very sluggish and she missed ramming by about 50 yards. The submarine had gone down quickly but was seen to be making about five knots on an easterly course. The *Llewellyn* followed up and dropped a depth charge, which exploded with great effect. She then dropped both paravanes and swept backwards and forwards across the submarine's apparent course. At 11.41 p.m. an underwater explosion was distinctly felt as of a mine exploding about a mile off. Lieutenant-Commander Nash made no claim to have destroyed the submarine till, on December 6 and 8, in much the same position, he observed a large patch of oil apparently welling up from below, about three miles due east magnetic from South Goodwin Light. This was subsequently regarded as the end of *U.C.19*, though it was not till October, 1918, that Commander Geoffrey Nash received a D.S.O. for his vigorous and well-timed attack.¹ The submarine attacked was actually *U.B.18*. She heard the depth charges explode,² went to the bottom, and got entangled in a net an hour later. She managed to free herself, however, and reached Zeebrugge on December 5, after a cruise sufficiently eventful, having sunk during December two steamers and four sailing vessels of 1,836 tons.

36. "**U.B.23**" and "**Q.11**," December 1.—*U.B.23* left on November 26, four days after *U.B.18*, and met another "*Q*" boat in the same area.³

On December 1, *Q.11*, the *Tamarisk*, Lieutenant-Commander John W. Williams, R.N.R., which had left Falmouth on November 30, was cruising in the entrance to the Channel,⁴ when, in $49^{\circ} 23' \text{ N.}, 6^{\circ} 35' \text{ W.}$, at 10.48 a.m., a submarine rose 5,000 yards off and opened fire. Twelve minutes later, as the submarine turned beam on, *Q.11* opened fire in her turn and got off eight rounds at 3,700 to 4,000 yards before the submarine disappeared. On board *Q.11* the second and fourth rounds were thought to be hits; there appeared to be "great confusion" in the submarine and she seemed to be sinking. It was considered that there was strong presumption that the submarine had been sunk; the Commanding Officer was given

¹ M.010811, in X.9086, 1916.

² 10.45 p.m. M.E.T. Marine Archiv. 157, February 26 1929. H.S./Q.04 (Exchange).

³ Marine Archiv. plan, Kr. 539 of September 4 1930, H.S./A. 13.

⁴ "R" route H.S. 646/331.

a D.S.O. and an award of £1,000 was given to the ship.¹ It is now known, however, that *U.B.23* was undamaged and continued her cruise.

She went off to the South Coast of Ireland—the only boat to visit it during the month—and it was possibly she that sank the s.s. *Harpalus* (see S.40) there on December 1; at 2.30 p.m. off the Fastnet ($51^{\circ} 15' \text{ N.}, 9^{\circ} 53' \text{ W.}$), in a thick mist she sighted the British S.S. *Kintuck* (4,616 tons, on the way to Newport, Mon.), and opened fire on her. The *Kintuck*, going 12 knots, brought the submarine astern, opened fire and vanished in the mist. The south coast-of Ireland route was closed the same day (December 2)² and *U.B.23* had no further success. It was not until December 4 that, at 1.30 p.m., off the Fastnets ($50^{\circ} 55' \text{ N.}, 9^{\circ} 28' \text{ W.}$), she got another ship, this time a Norwegian, the S.S. *Nervion*, 1,920 tons, bound for Nantes, and sank her with bombs. (Plan 9.)

She appeared next in the Channel, on her way home, where, on December 7, off Portland, the armed yacht *Evening Star*, Lieutenant-Commander J. Burn, R.N.R., made a vigorous attack on her. The latter was patrolling between Portland and the Start when, at 1 p.m., in $50^{\circ} 10' \text{ N.}, 3^{\circ} 0' \text{ W.}$, she sighted the periscope of a submarine³ two points on the starboard bow. As she made for it the conning tower came up 100 yards off, steering west, and she opened fire. The submarine crossed her bows, submerging fast. The *Evening Star*, running right over it, dropped a depth charge (Type C, 100 lb.), whose explosion *U.B.23* took for that of her own torpedo (which had missed) on the bottom.⁴

She went off to the eastward and that night started a huge blaze. This was the British S.S. *Conch*, 5,620 tons, homeward bound from Calcutta to London with 7,000 tons of benzine. She was abreast of St. Albans Head, some nine miles from the coast ($50^{\circ} 23' \text{ N.}, 2^{\circ} 2' \text{ W.}$),⁵ going 10 knots in a fairly smooth sea on a dark night with no moon, when, at 10.30 p.m., *U.B.23* sent a torpedo into her. The ship went up in a furious blaze and a stream of fire swept over the bridge, killing everyone there. Her engines continued to move and she careered about in circles and loops with burning oil pouring out of her, making it impossible for the armed trawler *Maristo*, which had come up, to get alongside. The destroyer *Nymphe* came up and helped to save men from the burning wreck, including the Chief Engineer and some Chinamen who had got away in a small boat. Others jumped overboard and were picked up. The Master,

¹ M.010818/16 in H.S. 646/372, 381.

² December 2 1916, 2100. It remained closed till December 5 when it was opened for defensively armed ships.

³ *U.B.23*, Marine-Archiv., January 13 1931, H.S./Q.20.

⁴ M.010839 in Cap. H. 272, 1916.

⁵ 12' S. (true) from Anvil Point. I.D., Vol. 625.

all the officers and 21 of the crew perished.¹ The Commander-in-Chief (Portsmouth), Admiral Hon. Sir Stanley Colville, considered she had been torpedoed, "which," he added, "must be expected if ships are permitted to steam down the centre of the Channel unescorted when there is a brilliant moon." *U.B.23* after an eventful voyage got back to Zeebrugge on December 10, having sunk in December 2 S.S. of 7,540 tons.

37. "**U.B.39**" off Ushant, November 27–December 11.—Two other submarines, *U.B.39* and *U.B.27*, leaving Zeebrugge on November 27 and November 26 had been operating successfully off Ushant and in the Channel, where *U.B.39* sank 15 ships of 22,291 tons, the biggest "bag" for Flanders in the month. Attacks in the Ushant area were rife from December 2 to 8 and on this account the Ushant route to the Bay remained closed for British ships up to December 14.² Most of the ships she sunk were small, but some were of fair size. Amongst the largest were the French S.S. *St. Phillippe*, 3,419 tons, sunk off Guernsey on November 29 at 4 p.m., after a long chase in which the ship received some 40 hits; and the Japanese S.S. *Nagatu Maru*, 3,316 tons, sunk off Ushant on November 30 at 2.30 p.m. A whole day elapsed. She only caught a French fishing vessel, the *Jeanne d'Arc*. Then on December 2, at 10.30 a.m., she met the British S.S. *Palacine*, 3,286 tons, from New York to Havre with 400 tons of oil, which had passed Ushant and was in 48° 40' N., 4° 43' W., when she was stopped and sunk with bombs. The next day, December 3, she only got a small French sailing ship, the *Primevere*, 143 tons, going from Swansea to Bordeaux, which she stopped at 7.45 a.m. in 48° 38' N., 5° 12' W., and sank with bombs. Taking off the crew she made to the S.W. and at 7.30 p.m. put them on board a Danish S.S. *Omsk*. It was probably she that at 9.45 a.m. attacked the British S.S. *Tapton*, 3,569 tons, 20 miles N.E. of Ushant, 48° 45' N., 4° 48' W. The submarine opened fire; the *Tapton* replied with a single round from her 12-pdr., and the submarine went down. There is no further word of the *Tapton*, but it may be remarked that if outward bound she had no business to be off Ushant. The next day, December 4, off the coast of North Brittany at 10 a.m., in 48° 45' N., 4° 25' W., *U.B.39* attacked the British S.S. *Taxandrier*, 4,231 tons. A heavy sea was running and the *Taxandrier*, going S.E., was evidently homeward bound. She was unarmed and two rounds had hit her when a French torpedo boat, the *Claymore*, came in sight, drove the submarine down and took the *Taxandrier* into Brest. *U.B.39* then made off again to the S.W., and at 2 p.m. on December 5, some 40 miles S.W. of Ushant, stopped the Danish S.S. *Alfred Hage*, from Buenos Aires, and let her go on. Easily

¹ M.61555/16.

² H.S. 316/101 telegram. Routes in force.

identified by the German rosette on her bows, she went on to the S.W., and on December 6, at 11.15 a.m., in 47° 25' N., 6° 42' W.,¹ met the Norwegian S.S. *Amicitia*, 1,111 tons, with iron ore for Honfleur and sank her with bombs. Three days later, close to Ushant, on December 7, at 9.50 a.m., she attacked the Spanish S.S. *Bravo*, 1,281 tons, going from Port Talbot to Bayonne with coal, in 48° 25' N., 5° 15' W. A French patrol, the *Lavardin*, came in sight, and after the ship had been abandoned, *U.B.39* sent a torpedo into her and went down.²

A single conclusion is applicable to all these cases. On November 22 orders³ had gone out for British ships to keep 150 miles west of Ushant, and that the route to the Bay, *via* Ushant, was closed. It remained closed right up to December 14.⁴ Lieutenant Furbringer may have had a big nose and a bad complexion and a stoop⁵ but his submarine was in the right place, and the *Palacine*, the *Taxandrier*, and the *Tapton* were not. No doubt they knew nothing of the route being closed, but that must be regarded none the less as one of the inevitable shortcomings of the routeing system.

Off the Channel Islands, on December 8, in the afternoon of a clear winter's day, *U.B.39* met three neutral ships—the Danish S.S. *Rollo*, 2,290 tons, and two Norwegian steamers, the *Rakiura*, 3,569 tons, and the *Saga*, 433 tons, and sank them all with bombs. She took the Norwegian boats in tow, but off the Casquets the next morning, had to cast off the tow and dive on the appearance of a French patrol, the *Dunois*.

U.B.39 does not seem to have been seriously attacked, and got safely back on December 11. She had sunk in December, 6 steamships and 2 sailing vessels of 12,250 tons, and during her whole cruise 12 steam ships and three sailing vessels of 19,341 tons.

38. "**U.B.37**," November 26–December 9.—*U.B.37* (Lieutenant Paul Gunther), which left the day before *U.B.39*, had smaller success. On her way down Channel, she evidently cruised off the Channel Islands, for she sank three fishing vessels off the Casquets on November 28, and was chased and driven down by the armed trawler *Maristo*, 16-pdr., at 2.15 p.m.⁶ It may have been she that on November 29, at 11 a.m., attacked the British S.S. *Kandy*, 4,921 tons, off Guernsey, but was driven down by her gun. It was she again, possibly, that the next day, eight miles westward of Ushant at 9.45 a.m., November 30, was fired at by a French patrol. Then she went off to the westward and on December 1, at 3.30 p.m., in

¹ 90 miles south-west of Ushant. The bearing has been plotted as true.

² I.D., Vol. 625, Etudes et Mouvements.

³ November 22 1915, H.S. 310/1066.

⁴ Routes 31 and 61 opened in telegram, December 14 1916, 1320, H.S. 316/101.

⁵ Report, *Palacine*, M.60978/16.

⁶ E.I. log, A.28/25 or possibly *U.C.21*.

47° 48' N., 7° 45' W., stopped the Norwegian S.S. *Erich Lindoe*, 1,087 tons, and sank her with bombs. She towed the boats towards land, 120 miles off, till 6.30 a.m., December 2, when she cast them off and went down. The boats saw the Greek S.S. *Demetrios Inglessis*¹ sunk (see U.C.21), so U.B.37 and U.C.21 must have been close to one another at the time. On December 4, at 8 a.m., she sank with bombs 17 miles S.W. off Ushant, another Greek S.S., *Fofo*, 2,616 tons. She took the boats in tow up to 2.15 p.m., when she was driven down by a French patrol vessel, *l'Amerique*, which appeared on the scene and opened fire.

On December 6 she was in the Plymouth area and, at 3.10 p.m., in 50° N., 4° 20' W., stopped the Danish S.S. *Halfdan*, 1,305 tons, carrying coal from Newcastle to Leghorn. For some reason or other she sank her with a torpedo instead of using bombs and then towed her boats towards land. She was then on her way home and on December 7, at 7.30 a.m., in 49° 45' N., 3° 40' W., off the Start, stopped a French sailing vessel, 1,948 tons, the *Marguerite Dollfus*, and sank her with bombs. Some 35 miles to the north-eastward, 50° 10' N., 3° W., at 1 p.m. that day a Portland patrol, the armed trawler *Evening Star*, Lieutenant Commander A. Burn, R.N.R., sighted a submarine and dropped a depth charge. This was U.B.23, which must have been working close to U.B.37. U.B.37 was back on December 9, having sunk in December three steamships and one sailing vessel of 16,957 tons. She had been fired at by a defensively armed ship, and twice driven down by French patrols.²

39. "U.C.21," November 26–December 12.—U.C. 21, Lieut. Salzwedel, left Zeebrugge on November 26, laid a couple of mines off Dungeness, four off the Royal Sovereign (see s. 45a), three off the Nab and three off the Needles. One mile from the Nab the drifter *Pelagia* was watching moored nets on November 28, at 8.30 a.m., when she was blown up with all hands. The drifters *Egbert* and *Faithful*, at once went to the rescue but she had been "blown to little bits."³ On December 8, the armed trawler *Dagon* was blown up on another of her mines off the Royal Sovereign. On November 29, 30 miles north of Ushant, in 48° 58' N., 5° 21' W., at 2.30 p.m., U.C.21 stopped the British S.S. *Eggesford*, 4,414 tons, on the way from Bordeaux to Barry, and was busy removing provisions from her when smoke appeared on the horizon, and U.C.21, sending a torpedo into her, went down. The ship drifted away derelict, and was picked up next day and towed into Brest.⁴

¹ Etudes et Mouvements, I. D. Vol. 725a.

² The French patrol system was on much the same lines as our own. At Brest in August 1916 there were five torpedo boats, nine patrol vessels and five gun boats. M.07555/16. Nor would it be correct to say that it was not equally active.

³ M.22766/16.

⁴ M.62436/16 and M.61553/16 in Box, November 1916 (XIV).

U.C.21 remained in the vicinity, and the next day, November 30, at 3.30 p.m., sank the French sailing vessel *Therese*, 30 tons, and the Norwegian S.S. *Draupner*, 1,126 tons, crossing the Channel from St. Nazaire in broad daylight, contrary to instructions.

The next day, December 1, she fell in with a good-sized ship. This was the British S.S. *King Bleddyn*, 4,387 tons, going from New York to Havre, which she stopped at 10.30 a.m. in 47° 54' N., 7° 5' W., and sank with bombs. She then proceeded towards Ushant and on December 2, at 6.30 a.m., in 48° 11' N., 5° 35' W., stopped the Greek S.S. *Demetrios Inglessis*, 2,088 tons, on the way to Hull, and sank her with bombs.

That afternoon, December 2, at 2 p.m., in 48° 15' N., 5° 22' W., she sank with bombs the Spanish S.S. *Urubitarie*,¹ 1,756 tons, going from Bilbao to Cardiff, which had been warned by a French patrol of the presence of a submarine. An hour later, 3 p.m., in 48° 18' N., 5° 20' W., she sent to the bottom the French sailing vessel *Robinson*, 186 tons. She had stopped in the same position the Danish S.S. *Yrsa* on her way to London, when the French patrol vessel *Ardent* came in sight, and U.C.21 had to make a hurried dive.

On December 3, north-west of Ushant, in 49° 17' N., 5° 17' W., at 10 a.m., she met the French s.v. *Louise*, 155 tons, Swansea to Bordeaux, and sank her with bombs, meting out the same fate by gun fire, at 4 p.m., some 30 miles to the south-westward to another French s.v., *Aiglon*,² 280 tons.

On December 4, working south-west of Ushant at 10.30 a.m., she met the French s.v. *Verdun*, 184 tons, and sank her in 47° 42' N., 5° 30' W., with gun fire and, going off to the north-west at 12.30 p.m., in 49° 53' N., 5° 46' W., met the Russian S.S. *Pallas*, 1,210 tons, on the way from Valencia to Bristol with fruit, and sank her by gun fire. Q.11, cruising off Ushant, came up about 4 p.m., and the submarine went down. She turned up next on December 5, at 8 a.m., some 30 miles south-west of Ushant, where she stopped the Danish S.S. *Nexos*, 1,013 tons, from Cartagena for London. It was a fine, clear day; the crew were put aboard the Dutch S.S. *Alphard*, stopped at the same time, and the *Nexos* was sunk with bombs. She then made to the N.W., and on December 6, at 8 p.m., in 49° 4' N., 6° 20' W., stopped the Spanish s.s. *Gerona*, 1,328 tons, with pit props from Oporto to Cardiff, and sank her with bombs. She appeared next off Ushant, and on December 7, according to U.C.21's Diary, at

¹ In list of ships given to her in a German telegram (I.D. Vol. 3126) are included the Greek S.S. *Demetrios Inglessis*, the Spanish S.S. *Urubitarie* and the French s.v. *Robinson* (all December 2). According, however, to the report of *Erich Lindoe* (I.D. Vol. 625) these were clearly sunk by the submarine that sank her on December 1, which according to Gayer, Vol. 4/66, was U.B.37. They have been given here to U.C.21, in accordance with Marine-Archiv. List (Q. 21).

² In Foreign Vessels Sunk, date of *Aiglon's* loss is December 6, but Etudes et Mouvements and Report (I.D. 625) give December 3.

1 p.m. sighted a steamer going north. This was the French s.s. *Honduras*, 5,912 tons, in 47° 54' N., 5° 25' W., which at once turned away and opened fire. She was lost to sight and U.C.21 proceeded towards Ar Men¹ hoping to cut her off. At 7.35 p.m., a steamer came in sight, completely darkened but visible in the moonlight. This was the British S.S. *Avristan*, 3,818 tons, from Portland Maine for London, with 4,718 tons of wheat. She was unarmed and had no wireless, but U.C.21 mistaking her for the *Honduras*, went down to attack at 7.35 p.m. At 7.55 she fired her stern tube at 450 metres. It struck the *Avristan* with a terrific explosion on the starboard side. The crew of 28 got away and were picked up at midnight by the British S.S. *Alster* and taken to Brest. U.C.21 went off towards the coast and on December 8, before dawn, ten miles west of Penmarch, 47° 42' N., 4° 46' W., met the French s.v. *Marjolaine*, 163 tons, and sank her with a few shots. That forenoon, off Penmarch, at 10.30 a.m. she stopped the Danish S.S. *Saga*, 47° 35' N., 4° 20' W., and let her go on; at 3.15 p.m., December 8, in 47° 38' N., 4° 19' W., she stopped the Norwegian S.S. *Modum*, 2,942 tons, and sank her with bombs. The submarine went off to the westward in the dark and at 6.30 p.m. met and sank with bombs the Norwegian s.s. *Falk*, 1,379 tons, which had been escorted from Ushant to Brest by two French patrols. This was her last victim. She seems to have left the Ushant area about December 9, and got safely back on December 12, having sunk in December, nine steamships and five sailing vessels of 20,881 tons²—a very good haul.

40. "U.B.29" and "U.C.19" sunk, December.—Two other German submarines never returned—U.B.29, Lieutenant Erich Platsch, and U.C.19, Lieutenant Alfred Nitzsche. They left Zeebrugge together on November 27, U.C.19 to lay mines off Dieppe and Havre and then to operate—U.C.19 in the West Channel and Atlantic; U.B.29 in the Channel. (Plan 8A.)

Between them they appear to have sunk off the Scillies in December eight steamers and two sailing vessels, of 13,290 tons. On December 1, at 7.45 a.m., in 49° 39' N., 5° 50' W., the Norwegian S.S. *Bossi* (1,462 tons), on the way from Bordeaux to Barry with pit props, was stopped and sunk with bombs. At 2.30 p.m., some 15 miles to the westward, in 49° 45' N., 6° 11' W., the British S.S. *Briardene*, 2,701 tons, from New York to London, with general cargo, was stopped and suffered the same fate. As she was only ten miles from the Scillies she was evidently disregarding the instructions to make land at dawn. A Dutch S.S. *Luna*, stopped at the same time, picked up the *Briardene's* crew and took them to

¹ In Chaussée de Sein, south of Brest. From U.C.21 *Kriegstagebuch*. M.A. January 13 1931 in H.S./Q.20.

² Gayer, 4/74, gives her for her whole cruise; eleven steamers and six sailing vessels of 22,091 tons.

Falmouth. The loss, though small, was regrettable, for the route had been closed for outward bound ships since November 28, and on November 29 the Admiralty had ordered all ships coming up Channel to be sent into port.¹

The next day, December 2, at 8 a.m., in 49° 15' N., 6° 36' W., the Norwegian S.S. *Hitteroy*, 1,260 tons, bound from Glasgow to Citta Vzcchia, was stopped and sunk by bombs. This was the work of U.B.29.² U.C.19 seems to have gone off towards the Irish Coast, for on December 1, at 9 a.m., in 50° 56' N., 8° 58' W., the British s.s. *Harpalus*, 1,445 tons, carrying coal from Cardiff to Nantes, was stopped and sunk with bombs and is not mentioned by any submarine that returned.³ The next victim was an Italian S.S. *Giustizia*, 1,169 tons, on her way from Lisbon to Glasgow.

She was stopped on December 3 at 1.20 p.m. in 49° 17' N., 7° 1' W., and sunk by gun-fire. The only ship sunk the next day (December 4) was the Spanish S.S. *Julian Benito*, 929 tons,⁴ from Villagarcia to Cardiff, stopped at 12.30 p.m. in 49° 14' N., 6° 25' W., and sunk with bombs.

On December 5, a fine day with a calm sea, at 11.15 a.m., west of the Scillies, in 49° 52' N., 7° 19' W., the Italian S.S. *Fede*, 1,256 tons, going from Naples to Barry Roads, in ballast, with no cargo but 185 tons of chestnuts taken aboard at Huelva, was stopped and sunk with bombs. As no other submarine mentions her, this was probably the work of U.B.29 or U.C.19.

On December 6 their activity was rudely disturbed. At 8.30 a.m., in 49° 38' N., 6° 34' W., the Russian sailing vessel *Ans*, 362 tons, from Liverpool to Nantes, was stopped and sunk by bombs off the Scillies. An hour and a half later, at 10 a.m., in about 49° 43' N., 6° 34' W., the Danish sailing vessel *Marie*, 325 tons, from Liverpool to Charente, was stopped and abandoned, but was taken in tow by the armed trawler *Foss*, and did not sink till 2 p.m., four miles from the Bishop. The British S.S. *Kashmir*, 8,841 tons, a P. & O., homeward bound from Bombay to London and armed with a 4.7-in. gun, was coming up Channel at the time and in 49° 40' N., 6° 38' W., at 9.20 a.m., sighted the submarine and saw the *Ans* blown up. She at once sent out a signal, and in response to it the destroyer *Ariel*, Lieutenant Chas. Blackman, appeared on the scene from Devonport.

41. "Ariel's" Attack, December 6.—She had not long to wait. At 1.12 p.m., in 49° 41' N., 6° 30' W., she sighted the conning tower of a submarine 1½ miles off and made for it at full speed. Down went the submarine, the *Ariel* dropped a depth charge which did not go off, turned hard round and got out her paravane. As she passed

¹ Admiralty telegram, November 28 1916, 2035; November 29 1916, 0025.

² *Hitteroy* reported O.C.'s name as Dinzel (I.D. 625) who was lost in U.B.29.

³ U.B.23 which was in the same area does not claim her (Marine-Archiv. List H.S./Q.21.)

⁴ Lloyds' Register; Foreign Vessels Sunk, gives 1,075 tons.

the supposed position of the submarine the starboard paravane fired by dyanometer in 58 fathoms and the usual bubbles appeared. This was regarded at the time as a "possible," and Their Lordships expressed appreciation for the prompt action. Later, in 1919, *U.B.29* was allotted to it.¹

This attack may possibly have destroyed one submarine, but another was certainly still working some 30 miles to the southward, for at 3.30 p.m., in 49° 13' N., 6° 40' W., the British S.S. *John Sanderson*, 3,275 tons, Algiers to Sunderland, suffered an attack. The ship headed away to the southward, bringing the submarine astern, opened fire with her 3-pdr. at 3,000 yards, and escaped.²

One certainly therefore, if not both, of these submarines continued operating, and the next day (December 7), at 1.35 p.m., in 49° 29' N., 7° 29' W. (42 miles west of *Ariel's* encounter) attacked the Belgian S.S. *Keltier*, 2,000 tons, homeward bound. The ship was laden with timber and, though torpedoed, would not sink. She was towed into Falmouth on December 12.³ The submarine then went off to the Norwegian S.S. *Meteor*, some ten miles to the northward (4,211 tons, Philadelphia to London), and at 4 p.m. sank her with bombs. In both ships the number 29 was observed on the conning tower (or possibly on a lifebuoy attached to it), which would support the idea that the submarine was *U.B.29*, though German submarines did not usually carry their distinctive numbers so prominently displayed.

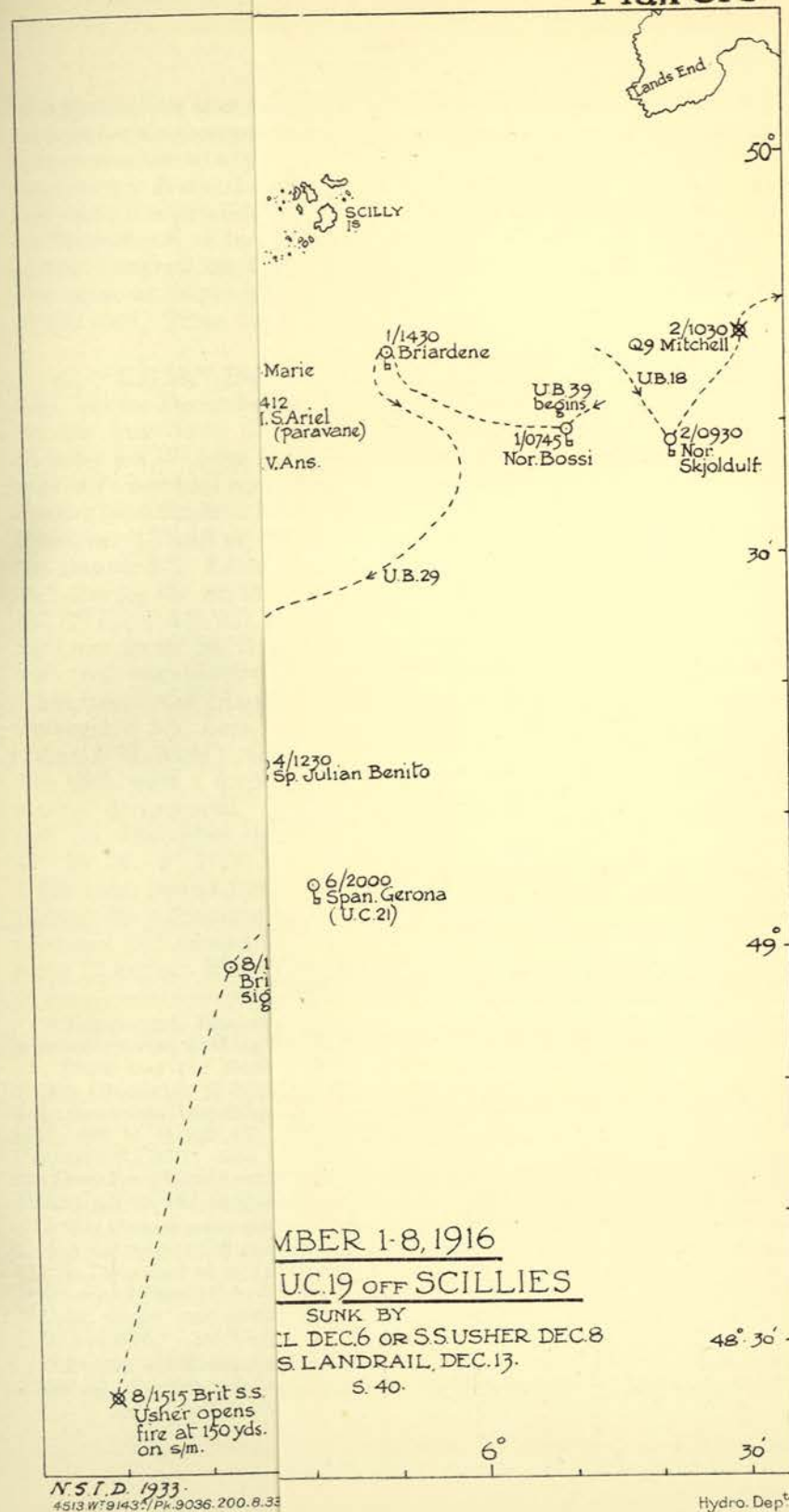
Seventy-two miles to the south-westward the next day (December 8), at 3.15 p.m., in 48° 26' N., 8° 51' W., a submarine was sighted by the British S.S. *Usher*, 3,594 tons, on her way to Leghorn. A conning tower rose suddenly on the starboard quarter 150 yards away and 10 rounds were fired at it with a 12-pdr. 8-cwt. gun, apparently hitting. It is very possible that the *Usher's* gun may have sealed the fate of one of these submarines, for attacks in the area ceased abruptly after this date and the incident was not reported by any submarine that returned. Another possibility may be found in an attack by the destroyer *Landrail* in the Straits of Dover on December 13, of which there is no mention by any submarine that returned. She was patrolling that night—it was very dark—when at 1.52 a.m., in 51° 9' N., 1° 46' E., on an easterly course near the Barrage, she sighted 300 yards on the starboard beam the conning tower of a submarine just submerging and apparently stopped, heading south-west. Going full speed, she turned and dropped two depth charges, both of which detonated. No wreckage was seen. The submarine was regarded in the I.D. at the time as a *U.B.* on its way home; the attack was classified as a "possible," and a letter

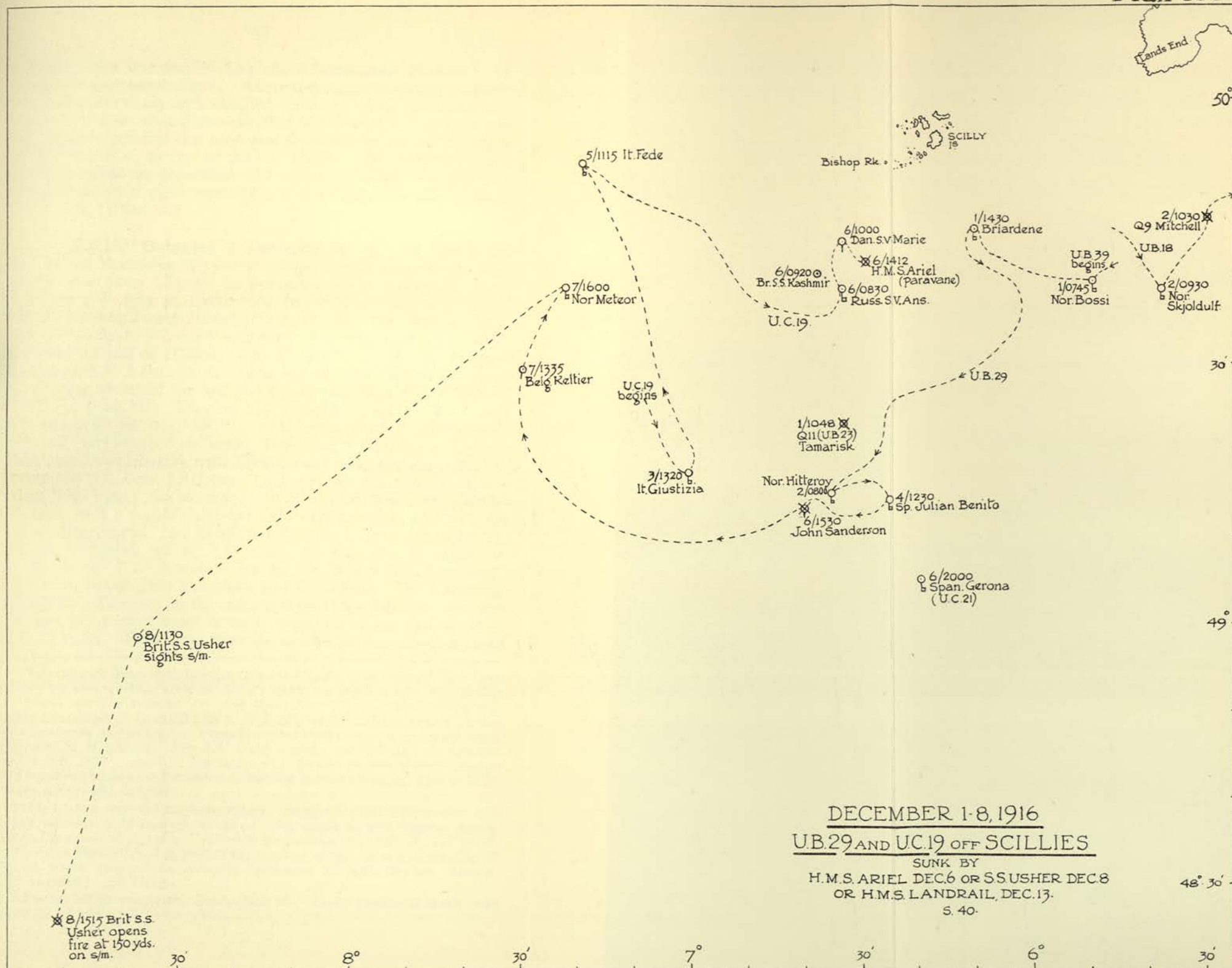
¹ M.010935/16.

² I.D. Vol. 625.

³ H.S. 314/592, 667, 848. M.010832/16.

Plan 8A.





DECEMBER 1-8, 1916
UB.29 AND UC.19 OFF SCILLIES
 SUNK BY
 H.M.S. ARIEL DEC. 6 OR S.S. USHER DEC. 8
 OR H.M.S. LANDRAIL, DEC. 13.
 S. 40.

of appreciation was sent to Lieutenant-Commander Francis E. H. Hobart for his prompt action. Where there is no wreckage, however, it is impossible to say with absolute certainty that a submarine was destroyed. It is certain, however, that *U.B.29* and *U.C.19* never got home and it is possible that they were destroyed by the *Ariel's* attack on December 6, or by that of the *S.S. Usher* on December 8, or that of the *Landrail* on December 13.¹ They sank between them in December at least eight steamships and 2 sailing vessels, totalling 16,722 tons. (Plan 8A.)

42. "**U.C.18,**" December 10–December 24.—*U.C.18*, Lieutenant Kiel, left on December 10 to work on the French coast in the Bay. On her way down Channel on December 11, at 1.30 p.m., some 15 miles S.S.W. from St. Catherine's, Isle of Wight, she stopped and sank with bombs a small Danish steamship, the *Inger*, 786 tons, proceeding from Spain to London with fruit. She was south of Ushant on December 13 and at 11.30 a.m., in 47° 40' N., 4° 35' W., stopped the Danish *S.S. Edna*, which was in ballast, and allowed her to go on. During the night she had laid 6 mines off Brest (Field 257) in 48° 17' N., 4° 54' W.). The next day, December 14, at 8.30 a.m., off the Loire, in 46° 54' N., 2° 38' W., two ships on their way to Bordeaux with coal, were stopped and sunk. One was the British *S.S. Glencoe*, 2,560 tons, from Glasgow with 3,800 tons of coal, and the other the Portuguese *S.S. Leca*, 1,911 tons. A heavy sea was running with a strong S.W. wind; the ships were 40 miles from land; the *Glencoe* was sunk with a torpedo and the *Leca* with gun fire, and the submarine² disappeared. *U.C.18* laid mines off the Loire on December 14, and on December 15 at 7.15 a.m., as day was breaking, in 47° 25' N., 4° 1' N.,³ opened fire on the British *S.S. Vancouver*, 4,419 tons, bound from Baltimore to La Rochelle. The *Vancouver* sighted the submarine on the starboard quarter a mile off; she was unarmed but turned away at once, going on to her full speed of some 12 knots. Then came from the north-east the sound of rapid

¹ The German Historical Section (Marine-Archiv) is of opinion that both submarines were working after the *Ariel's* attack on December 6. The Danish s.v. *Marie* and the Russian s.v. *Ans* (December 6); and the *Meteor* and *Keltier* (December 7) it attributes to *U.B.29*; to *U.C.19* the attack on the *John Sanderson* (December 6). It considers that their loss remains unexplained. M.A. 539 in H.S./A.13. For *S.S. Usher's* claim see M.61514/17, Lloyd's. February 5, 1917; also I.D. Vol. 625. *U.C.19* was originally attributed to the *Llewellyn's* attack on December 4, but this is now identified with *U.B.23*. Marine-Archiv 157, in Q.04.

² The *Glencoe* reported the submarine as a large one (about 80 metres) with 2 guns and with *U.46* painted on the c.t. (this might be on a lifebuoy again). But on December 14 at 5 p.m. *U.46* made her position in 51° 27' N., 11° 29' W. (west of the Fastnet) on her way to the coast of Spain. It might possibly be *U.C.46* whose movements between December 12 and 23 are obscure. (I.D. Vol. 626.) See S.44.

³ Etudes et Mouvements, Etude No. 38. Capt. Findlay's letter says 3° 49' W.

fire; it was the French patrol torpedo boat *Gabion*, heading the submarine off. *U.C.18* was forced to dive and the *Vancouver* escaped, making no attempt, though fitted with wireless, to report the submarine till she arrived in Pallice roads that evening. *U.C.18* went off to the eastward, and a couple of hours later, at 10.20 a.m., December 15, in 47° 25' N., 3° 44' W., stopped the Norwegian S.S. *Rogn*, 1,028 tons, on the way to Nantes with coal. The ship was abandoned and sunk with bombs, and *U.C.18* was towing the boats towards land when the ubiquitous *Gabion* came on the scene again and forced her down. She had laid mines off the Loire¹ on the night of December 14, and two days later, on December 18, at 1 p.m., the United States S.S. *Kansan*, 7,913 tons, struck one, but was fortunate enough to reach port. *U.C.18* then went south to the Gironde, and on December 17, at 7.30 a.m., some 20 miles from the entrance, sank the Norwegian S.S. *Prima*, 1,233 tons, with a cargo of 1,700 tons for Bordeaux; also the Portuguese S.S. *Cascaes*, 835 tons, on the way to Bayonne for a cargo of pitprops, and three French sailing craft.²

On December 19 she was back off Lorient and at 5 a.m., in about 47° 36' N., 3° 50' W., stopped the Danish S.S. *Cornwall*, laden with timber, and allowed her to go on. Four hours later, at 9 a.m., the French patrol vessel, *St. Iehan*, got a glimpse of her to the south-eastward in 47° 15' N., 3° 26' W. The next day, December 20, she turned up again off the Gironde and some 30 miles west of the entrance sank two small French fishing craft,³ but was driven down at 2 p.m. by the appearance of the French gunboat *Ardent*. On her way back, west of Guernsey, in the forenoon of December 22, she sank a French sailing vessel *Amedée*, 130 tons, at 9.45 a.m., and at 11.40 a.m., in 49° 40' N., 3° 8' W., stopped the Danish S.S. *Dansborg*, 2,242 tons, on her way from Sunderland to Lisbon with coal, and sank her with bombs. At 2.30 p.m. the same submarine, six miles to the south-eastward, in 49° 37' N., 3° W., stopped another Danish steamship, the *Hroptatyr*, 1,300 tons, with coal from Newcastle to Oran. The sea was rough and the bombs were being put on board when *Q.13*, the *Aubretia*,⁴ Captain John Marx, working from Devonport, came in sight. She was for some reason or other suspected at once; the submarine rushed alongside the ship and in the hurry and scurry collided with the lifeboat, crushing the Danish Captain, whose head was severed from his body. With eight of the

¹ Field 257a, six mines 334° from 47° 7' N., 2° 20' W. O.U. 6020B and Field 257b, 6 mines, 47° 10' N., 3° 8' W. In O.U. 6020B. for "Mouth of Gironde" read "off Belle Ile."

² French fishing vessel *Prosper Leon*, 42 tons, 7.30 a.m.; 2.30 p.m., French sailing vessels *Immaculée Conception*, 246 tons, and *St. Yves*, 324 tons.

³ *St. Antoine de Padoue*, 109 tons, at 8 a.m. in 45° 45' N., 1° 58' W., and the *Otarie II*, 32 tons, in 45° 20' N., 1° 28' W. at 1.30 p.m.

⁴ M.011422/16, B.1064/1916; a Copenhagen report (I.D. 627) states a French destroyer was sighted, but there is no French report confirming this.

Danish crew still aboard her, the submarine did a crash dive and went down. *Q.13* followed and dropped a depth charge in the failing light, then proceeded to pick up the boats of the sunken ships. Both these Danish ships were, contrary to all instructions, right in the middle of the Channel in the middle of the day. *U.C.18* got home safely on December 24 after sinking in December eight steamships and five sailing vessels of 12,746 tons.¹ (Plans 8 and 10.)

43. "U.B.38," December 11-22.—*U.B.38* (Lieutenant Amberger), which had commissioned in November, left Zeebrugge the day after *U.C.18* (December 11), to cruise in the Channel and off Ushant. Not much is known² of her cruise. On December 12, she sank the British s.v. *Coath*, 975 tons, which had left Havre at 1 a.m., probably by torpedo early in the morning, for the master and 16 men were never heard of again.³ At 10.30 a.m. on December 12, in 50° 5' N., 0° 40' W., she met the British schooner *Conrad*, 141 tons, Dieppe to Liverpool, and sank her with bombs. The crew of five, after seven hours' pulling, were picked up—wet, cold and hungry—by the armed trawler *Jackdaw*. On December 15, at 10.20 a.m., off the Scillies in 49° 33' N., 6° W., she met the British s.v. *Naiad*, 1,907 tons, London to Buenos Aires, with cement. Two armed trawlers, the *Whitefriars* and the *Ben Bhrackie*, patrolling off the Scillies, sighted the *Naiad* with her mainyard aback and came up to help her, opening fire on the submarine which was bearing S.S.E. in the sun's rays.⁴ *U.B.38* sent a torpedo into her and went down. She seems to have been working off the Scillies, but her success was small, for the Scillies route to the westward had been closed since December 12. On December 16, she took a cast to the north and at 11 a.m. in 50° 17' N., 5° 43' W., 12 miles from the Cornish coast, opened fire on the British schooner *Englishman*. A patrol vessel opened fire, the armed yacht *Venetia*⁵ came in sight and the submarine had to go down without further damage on either side.

It was then about 11.30 a.m.; the report reached the Devonport destroyers *Achates* (Commander F. E. Strong), *Owl* and *Contest*, off the Lizard; Commander Strong made for the spot at once, reaching it at 2.54 p.m. There they were told by an armed trawler that the submarine had just submerged three miles to the north-westward. Paravanes were dropped and a search (J.H.1) was carried out. It was fruitless, and the *Achates*, shifting the centre seven miles

¹ Gayer, 4/73, credits her with eight steamships and four sailing vessels of 12,043 tons.

² Gayer 4/67 gives her the French S.S. *Magellan* off Beachy Head. The *Magellan* was sunk in the Mediterranean on December 11. No ship was sunk in the Channel off Beachy Head.

³ M.61243/17. In British Merchant Vessels Captured or Destroyed (Return, August 19 1919), p. 28, she is attributed to a mine, but Marine Archiv includes her in *U.B.38*'s list (H.S./Q.21).

⁴ M.011368/16.

⁵ H.S. 316/618, but not *Lancaster*; there was no patrol vessel of that name. A.Y. 037 was *Venetia* (Cdr. H. W. Randall, R.N.R.).

north-west, commenced a second one (J.H.2) at 4.22 p.m. At 4.54 p.m., its monotony was varied by the explosion of the starboard paravane by impact in $50^{\circ} 33\frac{1}{2}'$ N., $6^{\circ} 2'$ W., 51 fathoms.¹ It did not explode, however, against *U.B.38*, for the next day, December 17, at 11.30 a.m., 30 miles to the westward in $50^{\circ} 25'$ N., $6^{\circ} 50'$ W., she stopped and sank with bombs the Spanish S.S. *Ason*, 2,804 tons, going from Santander to Ardrossan with iron ore. The submarine towed her boats till 8.20 p.m. towards shore, then cast them off and disappeared. The boats were picked up and the crew of 24 taken into Falmouth. *U.B.38* may have been working to the west of the Scillies, and as this route had been closed for outward-bound ships since December 12, would meet little traffic on it. Her subsequent doings are obscure, but she seems to have been working off Ushant, for on December 19, at 10.30 a.m., in $48^{\circ} 31'$ N., $6^{\circ} 7'$ W., she sank the French s.v. *Ocean* (339 tons) with bombs; she did nothing more and got safely back to Zeebrugge on December 22, after sinking one steamship and three sailing vessels of 5,162 tons.

44. "**U.C.46,**" December 19²–January 3.—While *U.C.18* was working on the French coast, *U.C.46* was on the opposite side in the Bristol Channel. She left Zeebrugge on December 19, and after laying nine mines off Dartmouth ($50^{\circ} 18'$ N., $3^{\circ} 32'$ W.) on December 22, proceeded to the Bristol Channel. On December 23, four miles N.N.W. of Lundy Island at 8.50 a.m., she opened fire on the British Admiralty transport S.S. *William Middleton*, 2,543 tons, Boulogne to Dublin; she was attempting in the rough sea to sink her by gunfire when the armed trawler *Thuringia* came up and engaged her, driving her down. The *Thuringia* put the steamer's crew back on board and she got safely in to Tenby. An hour or so later a few miles to the northward *U.C.46* attacked another ship, the British S.S. *Bertrand*, and was again driven down by the *Thuringia*.

She laid nine mines that night (December 23–24), off Swansea (in $51^{\circ} 33'$ N., $3^{\circ} 56'$ W.), and the British S.S. *Paul Paix*, 4,196 tons, coming up the Bristol Channel, struck one of them the next morning (December 24) at 6.20 a.m., off the Mumbles. The next two minutes were exciting. She saw another, backed clear of two more and ultimately managed to get into harbour. Two days later the French schooner *St. Louis* (184 tons), to Bordeaux with coal, was less fortunate. On December 26 she drifted over the minefield, struck a mine at 10.45 a.m., and sank with the loss of three men.

Q.8 (*Vala*, Lieutenant-Commander A. A. Mellin), was cruising at the time between Tuskar (Ireland S.E.) and Trevose Head (Cornwall) on the look-out for submarines. On December 26, at 8.28 a.m., she was on the north side of the Bristol Channel in $51^{\circ} 28'$ N., $5^{\circ} 22'$ W., on a S.E. course when she sighted on the starboard

bow a submarine some four miles off on the surface, making to the westward. The submarine opened fire at 8.40 a.m. and the shell whistled over the ship. The *Vala* slowed down, but the submarine continued to keep at long range and as it showed not the smallest intention of closing, *Q.8* at 9.5 a.m. opened fire with the two 12-pdrs. of the port battery at 7,500 yards just as the submarine¹ went down. This was almost certainly *U.C.46* which turned up again to the westward that afternoon (December 26) and sank a small British s.v. *Agnes*, 94 tons, and a Belgian trawler, the *Neptune*, 70 tons. She then went down towards Ushant, and on December 30, at 1.30 p.m., in $49^{\circ} 3'$ N., $4^{\circ} 46'$ W., stopped the Greek S.S. *Sappho*, 2,087 tons, bound for Hull, and sank her with gunfire.

The next day (December 27), at 11.55 a.m. in lat. $50^{\circ} 15'$ N., $5^{\circ} 43'$ E., the armed trawler *St. Hubert* (one 6-pdr.) sighted the conning tower of a submarine N.W. by N., four miles away, steering S.W., and headed for it, opening fire. But his gun could not range and the submarine went down.² She reported she had seen only one armed trawler on patrol there³ and it may have been she that on December 31, at 7.30 a.m., in $48^{\circ} 35'$ N., $5^{\circ} 32'$ W., stopped the Norwegian S.S. *Numedal* (2,191 tons), Tunis to Bergen, and allowed her to proceed. She got back safely on January 3 with a small bag to her credit of apparently one steamship and two sailing vessels of 2,256 tons for December.⁴

The cruises of *U.C.18* and *U.C.46* afford two good instances of ships of considerable size, the *Vancouver* and the *William Middleton*, saved by the intervention of patrols on the right spot. Unfortunately they could not always be there just at the right time.

45. **Channel (Continued) December 1916.**—Between December 7 and 18 there was a distinct diminution of activity, possibly due to the destruction of *U.C.19* and *U.B. 29*. On its revival during the latter part of the month activity was concentrated on the area round Ushant and in the Bristol Channel.

The bulk of the attack fell on neutral ships, though another British collier was sunk on December 14, 60 miles from the Loire, apparently by *U.C.18* who was operating there before laying mines off Brest and St. Nazaire. This was the S.S. *Glencoe*, 2,560 tons, on her way from Glasgow to Bordeaux with 3,200 tons of coal. On December 14, at 8 a.m., having evidently crossed at night, she was 14 miles N.N.W. of the Isle d'Yeu⁵ when she was stopped in a heavy sea with a westerly gale, ordered to be abandoned, and was sunk by a torpedo. The route was closed the next day at 3 p.m.⁶

¹ Queenstown, H.S. 646/423, *Q.8*'s report.

² M.038/17.

³ C.B.01370, p. 5 (Captured Documents).

⁴ Gayer says two S.S. and one s.v. of 4,309 tons. Gayer 4/75.

⁵ $46^{\circ} 55'$ N., $3^{\circ} 40'$ W.

⁶ Telegram, December 15 1916, 1500.

¹ M.011276/16, B.1019/16, Commander F. E. K. Strong received Their Lordships' appreciation for prompt action taken (January 30).

² Marine-Archiv, H.S./Q 04.

Three days passed before another British ship of any size went down. This was the S.S. *Pascal*, 5,587 tons, a Government transport going from Halifax to Cherbourg with 3,500 tons of oats and hay. She was some 12 miles north of the Casquets¹ on December 17, at 4.30 p.m., when she was stopped by a shell. Another shell killed the second officer (Howard D. Poulton) and boatswain when they were getting the boats out. The vessel was torpedoed and the master taken prisoner. This was the work of *U.70* coming down Channel on her way to the Spanish coast, the first time that a large submarine had passed Dover since 1915.

The target of attack off Ushant was the coal trade, though the largest British ship sunk in the area in the month was not carrying coal but 8,700 tons of maize from Buenos Aires to London. This was the S.S. *Flimston*, of 5,751 tons. She was in 48° 48' N., 5° 8' W., 21 miles north true from Ushant, on December 18 at 8.45 a.m., steering north true in fine clear weather, when *U.70* stopped her with the familiar signal "AB" and sank her with bombs. The master and the chief engineer were taken prisoners and the crew were picked up at 4.40 p.m. by two French destroyers.

The question of route instructions was involved in the loss, for it was patent that the *Flimston* was crossing the Channel in broad daylight instead of in the dark hours, though the Vice-Consul at Monte Video² stated that the master had been given the Admiralty instructions of July 2 to the latter effect. The chief officer, on the other hand, asserted stoutly that the instructions to Captain Davies had merely been given verbally, and that he was certain that he would have been advised had they contained anything as to crossing from Ushant to Falmouth in dark hours. Further, they had sighted two patrol vessels at 7 a.m. three miles north of Ushant who had taken no notice of them.³

Out of the incident there came a letter to the Commodore, Falmouth, February 16 1917, and to Captain W. A. H. Kelly, Liaison Officer at Paris, to request that patrol vessels off the Lizard and Ushant might be directed to warn vessels not to attempt to cross during daylight hours. Such were the difficulties of exercising control over independent sailings.

The fact that the Ushant route was closed for outward bound ships and that the route in force at the time was by the South Coast of Ireland and Cornish coast⁴ seems to have escaped comment at the time.

The only other British ship sunk off Ushant was the S.S. *Bargany*, 872 tons, another collier, with 1,077 tons of coal from Cardiff to Lorient. She was stopped by *U.C.17*, on December 24

¹ 49° 55' N., 2° 27' W.

² Vice-Consul, January 9 1917.

³ *Flimston*, B. of T., December 28 1916.

⁴ Routes 23, 51, 82. Telegram, December 15 1916, 1500.

at 3.50 p.m., 25 miles N. of Ushant and sunk by bombs, and though apparently no notice was taken of it at the time, was evidently, like the S.S. *Flimston*, contravening the Admiralty instructions to cross in dark hours.¹

The losses in December, like those in November, afforded grounds at the time for the view that defensive armament, routeing and patrols, would be a sufficient answer to the submarine menace. The *U.C.* boat only carried six torpedoes and could not afford to waste them on trawlers and small patrols. Nor were the *U.B.* boats able to reply to a gun of any size.

The British S.S. *Usher*, 3,594 tons, outward bound on her way from Cardiff to Leghorn, fitted with a 12-pdr. 8 cwt. drove off a submarine on two days running. On December 7, at 3 p.m., in 50° 35' N., 7° W., she sighted the conning tower of a submarine and fired off eight rounds at it, the fourth and eighth shell "causing a great volume of smoke to rise" from it. The next day, to the south-westward she sighted a submarine² at 11.30 a.m. and another in 48° 26' N., 8° 51' W., at 3.15 p.m. The conning-tower was only 150 yards away, and after ten rounds had been fired at it the submarine disappeared apparently hit.

46. Channel, German Submarine Minelaying.—In the Channel 50 mines were laid, and 18 off Brest and the Gironde. Several large ships were mined in the Channel, but where tugs were available four of them managed to reach harbour.

Mines were laid as follows:—

Date.	Field. ³	Mines.	Submarine.	Locality.	Loss or Damage.
December 13, 14	257	18	<i>U.C.18</i>	Brest and Loire.	U.S.S. <i>Kansan</i> , 7,913 tons (18th), got in.
December 7, 8	263	18	<i>U.C.46</i>	Dartmouth (9) Swansea (9)	British S.S. <i>Paul Paix</i> 4,196 tons (24th), got in. French sailing vessel <i>St. Louis</i> , 184 tons (26th).
December 16-18	264	14	<i>U.C.17</i>	Shambles (3) Portland (3) Berry Head (4) Eddystone (2) Manacles (2) (Falmouth).	—
December 22, 23	258	18	<i>U.C.16</i>	Dungeness (4) Royal Sov. (5) Beachy Head (3) Owers (6)	S.S. <i>Suffolk</i> , 7,573 tons (26th), got in. S.S. <i>Aspenleaf</i> , 7,535 tons (30th), got in.

¹ B. of T. January 1 1917.

² I.D. Vol. 625. This was possibly *U.C.19* or *U.B. 29*.

³ O.U. 6020B., German statement (Flanders).

The scattered field laid by U.C.21 (See s. 39) at the end of November and early in December between Dungeness and the Owers and off the Nab caught at least one large ship. This was the P. and O. S.S. *Poona*, 7,626 tons, going from London to Calcutta, with cargo and £400,000 worth of gold. She had been held up in the Downs from December 3 and proceeding on December 6 was at 3 p.m. in 50° 39' N., 0° 3' W., about nine miles S.W. (true) of Beachy Head¹ when she struck a mine and had her starboard side blown in by a big explosion. The Commander-in-Chief, Portsmouth, at once ordered all traffic to pass ten miles south of Beachy Head.² The captain stuck to his ship, asked a patrol vessel to signal to Portsmouth for tugs, which arrived at 7 p.m., and she reached Newhaven safely.³

On December 8, at 6.25 p.m., the armed trawler *Dagon* (one 12-pdr.), struck another of these mines in 50° 43' N., 0° 28½' E., off the Royal Sovereign and sank.

Of the crew of 19 only those on deck—seven in number—were saved. The Captain, Lieutenant E. E. Roberts, R.N.R. and Skipper I. Pearce, both lost their lives.⁴

Two days later, December 10, the mines laid off Cherbourg by U.C.26 at the end of November caught the British S.S. *Strathalbyn*, 4,331 tons, on her way to Havre from New York with 6,200 tons cargo. At 10 p.m. she was just off the harbour, two miles N., 60 E. from the central fort of the breakwater in about 49° 41' N., 1° 37' W., when she struck a mine and sank twenty minutes later.⁵ It must have been about this date too that the small S.S. *Sea Fisher*, 297 tons,⁶ was lost in the Irish Sea. She left Waterford for Barrow with timber on December 9th and the only sign of her was a lifeboat picked up off the Arklow Banks. As no submarine was operating in the Irish Sea and her route was well south of the Calf of Man field laid by U.80 on October 17 1916,⁷ her loss remains something of a mystery.

This minefield still continued a teasing proposition, and was responsible for the loss of two more ships during the month. On

¹ M.61711/16, Master's deposition. It should be noted that 9' S.W., of Beachy Head, is 50° 37' N., 0° 3' E.

² H.S. 314/169.

³ M.61711/16.

⁴ Field 252 in O.U. 6020B. Of the ten mines laid, five were reported swept up and destroyed on November 27 and November 28. Three more were probably destroyed, one blew up the *Dagon* (December 8) and one the steam trawler *Margaret* (December 17). Dover Auxiliary Patrol Report, H.S. 376/282.

⁵ M.61757/16.

⁶ M.61755/16. Not mentioned in British return.

⁷ Field 21, O.U. 6020 A.

the afternoon of December 18, the British S.S. *Opal*, 599 tons, on the way from Belfast to Glasgow with limestone, was lost off the Isle of Man¹ with all hands.

The next day, December 19, at 11.30 p.m., 11 miles S.E. by S. of the Chicken Rock (Isle of Man) in 53° 49' N., 4° 23' W., a sudden explosion blew up the bows of the British S.S. *Liverpool*, going from Liverpool to Sligo. She remained afloat for a time and the S.S. *Ruby* made an attempt to tow her, but she sank on December 20, at 5.40 a.m.² A large area was announced as dangerous and the Holyhead sweepers were busy there till the end of the month but no mines were found.

In the Channel, over a week passed without any further mining losses. Then on December 17, the small steam trawler *Margaret*, 54 tons, fishing off Dungeness, was getting in her trawl at 11 a.m., when there was a big explosion and she went down with all hands, except a boy who jumped overboard and was saved.³ She had struck another of the mines laid by U.C.21 some weeks before. U.C.46 laid her mines off Swansea on December 24, and that forenoon at 10.20 a.m., the British S.S. *Paul Paix*, 4,196 tons, was in 51° 32' N., 3° 58' W., two miles from the Mumbles,⁴ making for Swansea when she sighted a mine close to; the helm was put over, but a second mine appeared on the starboard bow and as she struck it two more could be seen. The ship was badly damaged but managed to reach port. The French s.v. *St. Louis*, 184 tons, was not so fortunate. She left Swansea on December 26, for Bordeaux with coal and at 10.45 a.m., four miles south of the Mumbles, struck two mines and sank immediately with a loss of three men.

A dangerous area had been announced at once on December 24,⁵ but the Customs apparently omitted to inform the master of the *St. Louis*.⁶ Three more mines were swept up⁷ by January 4 and on January 7, the area was declared clear.

47. U.C.16, December 20-27, and U.C.17, December 14-30.—U.C.16 was fortunate and unfortunate in her fields. She left Zeebrugge on December 20, and on December 22 she laid 18 mines between Dungeness and the Owers. Two large ships struck

¹ M.62445/17, B. of T., February 24 1917, in Box, December 1916, XV. A. No details as to position; the report apparently only reached the Admiralty on February 24 1917.

² M.62624/1916.

³ M.62059/16. In about 50° 49' N., 0° 47' E.

⁴ M.60036/16. Note, Mumbles Light is in 51° 34' N., 3° 58' W. It is the headland on west side of Swansea Bay.

⁵ Q.526 of December 24 1916 and traffic instructions.

⁶ M.62633/16.

⁷ In 51° 32' N., 3° 57½' W.

her mines but both got in. On December 26, at 5.58 p.m., the British S.S. *Suffolk*, 7,573 tons, on her way with Admiralty stores from London to Devonport, struck one of her mines six miles S. 60° E., of the Owers. She made for St. Helens Bay and was got safely into Portsmouth.¹ The Commander-in-Chief, Portsmouth, at once announced a dangerous area one and a half miles round the spot in 50° 35' N., 0° 30' W.² This, however, did not prevent the British S.S. *Aspenleaf*, an oiler of 7,535 tons, running on another mine. She was being escorted down Channel by the armed trawler *Smew* when at 9.35 p.m., on December 30, she struck a mine two miles S.E. of the Owers in 50° 37' N., 0° 34' W. The ship was abandoned but the Captain of the *Smew* persuaded the crew to go back on board and she was got safely into harbour.³ U.C.16 had to go back on Christmas Day on account of damage to her depth rudders without a single ship to her credit.

U.C.17's mines were laid off Portland (December 16), Berry Head (December 17), the Eddystone and Falmouth. She left Zeebrugge on December 14 and on December 15 at 7 a.m., in 50° 4' N., 0° 25' W. in mid-Channel, stopped the British S.S. *Red Rose*, 401 tons, going from Poole to Fecamp with pitprops. Suddenly smoke appeared on the horizon. This was the *Cherwell* and *Exe*, returning from Havre after an escort trip. Down went the submarine; the crew were put back on board and the ship saved. The *Exe* proceeded to search, but the visibility was poor owing to fog and rain. At 8.45 a.m. she put over her paravane; it exploded and came to the surface almost at once, which was attributed at the Admiralty to putting the pawl down before the drum had stopped.⁴

U.C.17 went on, sank the British S.V. *Constance Mary*, 177 tons, that afternoon and laid mines off Portland and the Shambles that night. On December 17 she laid mines off the Eddystone. At 8.15 p.m., on a dark clear night with no moon, three miles S. 60° W. from the light, the destroyer *Sunfish* heard a "humming noise" and sighted a dark object 400 to 500 yards on the starboard bow. She went full speed ahead but the submarine vanished.⁵

The mines were found the next morning. That same night she laid mines too off Falmouth,⁶ the armed trawler *St. Ives* swept one up on December 18 and another on December 19, but on December 21 at 8.15 a.m. as she was leaving harbour, she was torpedoed by U.C.17 two miles S.S.W. of St. Anthony's Point in

¹ M.60032/16.

² H.S. 318/978. Ad. Portsmouth 9 p.m.

³ H.S. 275/348, 349.

⁴ M.0362/16, in A.945/1917.

⁵ M.011211/16.

⁶ According to German statement (O.U. 6020B., Field 264d) only two mines were laid off the Manacles, but three were swept up there between December 18 and 30. H.S. 727/396, 410.

50° 6' N., 5° 2' W., and went down with all hands, including Lieutenant W. A. Carmichael, R.N.R., her Captain, and 10 men.

U.C.17 cruised for two days between the Lizard and Ushant where she sank four small French sailing vessels on December 17 and 18.¹ She then seems to have gone to join U.C.18 in the Bay, for she mentions that she was off St. Nazaire on December 19 and off Gironde on December 20.²

On December 24 at 3.45 p.m., to the north of Ushant in 48° 52' N., 5° 19' W., she caught the British S.S. *Bargany*, 872 tons, crossing the Channel in daylight from Cardiff to Lorient. A south-east gale was blowing and the ship was sunk with gunfire. The next day, December 25 to the eastward in 49° 3' N., 4° 31' W., at 5.30 p.m., she sank with bombs a small French s.v., *Courlis*, 181 tons. Three days elapsed before, on her way home off the Channel Islands on December 28 at 10 a.m., she sank in 49° 54' N., 3° 16' W., the Norwegian s.v. *Union*,³ 563 tons, on her way from Hayti to Havre with logwood, and at 2.40 p.m. the British s.v. *Pitho*, 142 tons, bound from Cardiff to Cherbourg. She got back on December 30 with a sinkage of one steamer and nine sailing vessels, 2,534 tons in all.

48. "U.79" in Channel on passage, December 26, 27.—A large submarine was in the Channel at the end of the month. This was U.79, Lieutenant-Commander Jess, one of the large minelayers of the First U Boat Flotilla, which passed through the Channel on her way to Spain. She left Emden on December 21 and on December 26 at noon, off the Channel Islands, stopped the Danish s.v. *Johan*, 828 tons, going from Jamaica to Havre and sank her in drizzling rain with bombs. The next day, December 27 at 9.20 a.m. in 49° 19' N., 5° 49' W., between the Lizard and Ushant, the British S.S. *Copsewood*, 599 tons, proceeding from Bordeaux to Middlesbrough with pitprops was torpedoed. The *Copsewood*, contrary to instructions, was right in the middle of the Channel as day broke. It was U.79⁴ that at 2 p.m., some 25 miles south of where the *Copsewood* was sunk, stopped the Norwegian S.S. *San Andres*, and let her go on in ballast. At 3.15 p.m., in 48° 56' N., 5° 30' W., a few miles off, she stopped another Norwegian S.S., the *Ida*, 1,300 tons, on the way to Liverpool, and sank her with gunfire. On his way to the coast of Spain, Jess sank 2,727 tons in the Channel. His only other ship during the month was the Danish S.S. *Danmark*, 1,875 tons, which he sank off Estaca, near Cape Ortegal, N.W. of Spain, on December 31. (See S.85).

¹ 17th *Alerte*, 175 tons; 18th *Quo Vadis*, 109 tons; *Maria Louis*, 108 tons; and *Vague*, 167 tons. The *St. Ives* was supposed to be mined, but she is given by Germans in list of ships sunk by U.C.17 (Q. 21).

² C.B. 01370A., p. 5, German secret instructions.

³ German telegrams captured, I.D., Vol. 611.

⁴ Untersuchungs-schein was endorsed 'I.U. Boats Flotille,' tracing in I.D. Vol. 627.

49. "U.B.18" and "U.B.39."—On December 27 *U.B.18*, Lieutenant Lafrenz, and *U.B.39*, Lieutenant Heinrich Küstner, sailed from Zeebrugge—*U.B.18* to work off the Scillies and Casquets and *U.B.39* off the North Coast of Brittany and West Coast of France. They passed Dover on the night of December 27 without sighting any patrols.¹ On December 28 at 5.45 p.m., six miles north of the Casquets, *U.B.39* torpedoed the French auxiliary cruiser *Rouen*, which managed, however, to keep afloat and was not abandoned till the next day, to be finally picked up by trawlers and towed into Dieppe on December 31.² It was probably *U.B.39* that on December 31 at 12.10 p.m., in 49° 26' N., 3° 13' W., some 25 miles west of Guernsey, opened fire on the British S.S. *City of Oran*, 7,395 tons, homeward bound from Australia to London. The *City of Oran* returned the fire with a 12-pdr. gun and after firing six rounds the submarine went down. She had sunk nothing in December. *U.B.18* was meanwhile working between the Lizard and Ushant. She was off the Lizard the next day, December 31, and at noon stopped in 49° 32' N., 5° 40' W., the Norwegian S.S. *Flora*, 1,032 tons, bound from Swansea to Nantes with a cargo of coal, and sank her finally with a torpedo. *U.B.18* proceeded north-east and at 3.55 p.m., in 49° 48' N., 5° 13' W., stopped another Norwegian S.S., the *Eva*, 637 tons, going with a cargo of coal from Swansea to Rouen, and sank her with gunfire. Lafrenz gave the master a paper certifying her loss and identifying his submarine. That morning, December 31, at 7.20 a.m. the Norwegian S.S. *Numedal*, 2,191 tons, on a voyage from Tunis to Bergen was stopped off Ushant and allowed to go on.³

In the last days of December *U.B.39* sank nothing, and *U.B.18* sank two steamers of 1,669 tons. They both saw the New Year in at sea. (See S.104, 105.)

50. Submarines, Atlantic, "U.C.20," "U.47," "U.52," "U.38."—Up to the close of 1916 the voyage of *U.53* to America remained a unique example of what the German submarine could do. Leaving Germany on September 17 1916 she had remained at sea for six weeks without replenishing fuel or provisions. But in December 1916 her record was beaten by *U.C.20*, Franz Becker. She had been specially designed for lengthy cruises, and after completion in September 1916, left Germany on October 18; she proceeded to Cape Nun on the Coast of Africa opposite the Canaries, where on November 14–15 she landed two officers, and on November 23 attempted to land arms and munitions for the Moroccan agitator,

¹ C.B. 0170A., p. 7.

² I.D. Vol. 725a. Etudes et Mouvements.

³ The boat was apparently a *U.C.* boat (two torpedo tubes in bow), but the only *U.C.* boat out was *U.C.46* which seems to have been off the Bristol Channel where the Danish S.S. *Ladas* was stopped at 2 p.m. and allowed to go on.

El Hiba. Unable to get all the supplies ashore, she left 80 rifles and 10,000 cartridges and a code on a raft, which was found by a patrol vessel, the *Ocean*. Though the landing was only partially successful, her arrival gave rise to all sorts of rumours and started an effervescence along the frontier posts of South Morocco. *U.C.20* went on to the Canaries where she stayed a day or two, arriving at Cattaro on December 11 after a record voyage of 55 days.

She was followed by *U.47*, Lieutenant-Commander v. Metzger, and *U.52*, Lieutenant-Commander Hans Walter, who left Germany in company on November 15 and proceeded north-about. At dawn on November 26 *U.52* was off the Berlings, Portugal, in heavy weather, when she sighted in 39° 10' N., 11° 40' W., the French battleship, *Suffren*, 1899, 12,750 tons, four 12-in., ten 6.4-in., coming north. She was able to approach without being seen and sent a torpedo into her. The *Suffren* must have blown up, for as the submarine dived, she felt a shock as if a ship had run into her. When she rose some minutes later, not a sign of the battleship was to be seen.¹

The two submarines went on to the Canaries where they sank the Dutch S.S. *Kediri*, 3,781 tons, November 30, and a French sailing vessel, and captured two Greek ships² which they used as tenders. They remained in the Canaries area for about a fortnight, November 30–December 12, when they went on to the Mediterranean, *U.52* probably passing the Straits in the night of December 16–17 and *U.47* two nights later without being seen.

The Germans were evidently anxious to exhibit their power of striking far afield, for *U.38*, Lieutenant-Commander Max Valentiner, one of their most ruthless Commanders, made a sally from the Mediterranean,³ passing Gibraltar about November 29. Some 50 miles west of the Straits he captured the Norwegian S.S. *Solvang* and ordered her to tow him to Madeira. They had gone about three-quarters of the way when the tow parted on a dark night and the *Solvang* seized the opportunity to slip away.

At dawn on December 3, *U.38* bombarded Funchal. At 8 a.m. the French gunboat, *Surprise*, two 4-in., four 9-pdrs., arrived, escorting the French S.S. *Kangaroo*, 2,493 tons, and the British S.S. *Dacia*, 1,856 tons, a cable ship on French Government service. They had been anchored a bare half-hour when they were all three torpedoed and sunk, a circumstance suspiciously indicative of *U.38* having been ordered there to await them. He then proceeded to cruise off the approach to Lisbon, December 8–10, and though he had orders not to sink without warning, on December 8 he sent a torpedo into the British S.S. *Britannia*, 1,814 tons without any warning whatever. She was on her way to Gibraltar after calling

¹ "disparut sans laisser la moindre trace."

² The *Spyros*, 3,357 tons, and *Salamis*, 3,638 tons.

³ *U.38* proceeded to Mediterranean in November 1915.

at Lisbon, and was carrying in her cargo some 600 tons of ordnance, explosives, torpedoes and 3-pdr. guns for Gibraltar. She was torpedoed at 5.40 p.m. some 100 miles from Lisbon in 37° 18' N., 10° 29' W. She was armed and her gun was manned, but got no chance of a shot. The chief engineer and two men were killed by the explosion, the remainder pushed off in the lifeboat. The submarine rose, and Valentiner, after stating that he had information that the ship was carrying explosives, took the master, Captain Frank Moynihan, prisoner to be carried back finally to Cattaro. Valentiner gave the boat its position; the sea was calm, the moon was shining brightly, and the survivors reached the coast the next day.

At the Admiralty the hour of destruction—5.40 p.m.—gave rise to remark. The ship was going 9½ knots and must have left Lisbon about 5 a.m. Her instructions had been issued at Devonport; she had been told to keep 100 miles west of Cape St. Vincent and to call at Lisbon *en route*, but had no instructions to leave Lisbon at dusk. The Director of the Trade Division considered that she was lost through the "very loose orders" issued at Devonport.¹ These he considered should have contained a clause enjoining her to make from Lisbon in dark hours at full speed for a position in 38° N., 12° W. (134 miles from Lisbon).²

To deal with this new activity, *E.38*³ was despatched to Gibraltar for the Canaries to act apparently in conjunction with Captain Gordon Campbell, who was sent to Madeira with *Q.3*. *Q.3* sailed from Gibraltar on December 27, but did not meet them, for by that time, *U.52*, *U.47* and *U.38* had passed into the Mediterranean.

51. Off Finisterre, "U.46," "U.70."—Meanwhile two large submarines, *U.46* and *U.70*, had been working off Finisterre and in the Bay of Biscay, an area which had been clear since *U.49* was there early in November. *U.46*, Lieutenant-Commander Saalwächter, left Germany on December 9 1916, and going north-about arrived in the Bay on December 16, where he made himself very unpleasant till December 27, sinking seven steamers,⁴ one sailing vessel and one trawler, 15,424 tons in all.

On December 16, at 10 a.m., she started her operations by the sinking of the Danish S.S. *Chassie Maersk*, 1,307 tons, and the capture of the Danish S.S. *Gerda*, 775 tons, on her way to England with fruit. At 6 p.m., she met the Japanese S.S. *Taki Maru*,

¹ Instructions were issued from Dockyard by Superintending Transport Officer for Admiral Superintendent. B.1055/1916, M.011263/16.

² M.011263/1916, "Western Trade Route" in force at time (December 8) enjoined ships to pass 250 miles west of Finisterre and make Lisbon on a course east.

³ Left Devonport, December 13; *Q.3*'s orders, December 9. H.S. 328/935, 741, 773, 883.

⁴ British 2, Japanese 1, Norwegian 1, Danish 2, Spanish 1.

1,927 tons, carrying coal from Cardiff to Leghorn for the Italian State Railways. She was stopped on December 16, at 4.10 p.m., in the middle of the Bay, 47° 30' N., 9° 30' W., and sunk by bombs. The crew took to the boats. They were 160 miles from land; an easterly wind was blowing up; the sea was high, and the second boat with the chief officer and 22 men was never seen again. The largest British ship sunk by her was the S.S. *Bayhall*, 3,898 tons, homeward bound from Mauritius to Bordeaux with 6,000 tons of sugar. On December 17, at 11.50 a.m., in 45° 16' N., 8° W., 120 miles N. 20 E. (true) from Finisterre she was stopped and sunk with bombs. The crew was put on board the *Gerda*, and the master, Captain F. Sircom, was taken prisoner,¹ went back and became a prisoner of war.

The route given to the *Bayhall* is not known. She had to make Bordeaux and an alternative course would have been to keep 120 miles west of Finisterre and run into Ushant from 9° West.²

U.46 went on, and on December 19, at 10.30 a.m., 5 miles east of Cape Finisterre, stopped and sank with gunfire the Norwegian S.S. *Falk*, 948 tons, going from Cardiff to Oporto.

The *Gerda* proceeded to Finisterre on December 19, and, after landing the captured crews, was sunk, an incident which led the Foreign Office to protest (January 6 1917), that it was incumbent on the Spanish authorities to release the *Gerda* under Arts. 21 and 22 of the XIIIth Hague Convention of 1907, unless she put in from stress of weather, unseaworthiness, or lack of fuel or provisions. The Germans, however, did what they had to do too rapidly to permit of any action on the part of Spain.

On December 23, at 7.40 a.m., she stopped and sank with bombs a Spanish S.S. *Marquess de Urquijo*, 2,530 tons, with iron ore, from Bilbao to Middlesbrough. The ship was 57 miles N.N.E. of Bilbao, some 50 miles from the coast, and was not following the Admiralty instruction that neutral vessels with iron ore for the United Kingdom were to hug the French and Spanish coasts.³

The last ship sunk by her was the British S.S. *Aislaby*, 2,692 tons, going from Lisbon to Bilbao. She was stopped and sunk by bombs at 7.40 a.m. on December 27, in the south of the Bay, lat. 43° 51' N., 7° 28' W. The crew were put aboard a captured French trawler and landed later off Estaca Point. The ship was ten miles from the Spanish coast and was not following the Admiralty route instructions of December 10.

¹ He was treated well, and on Christmas night a Christmas tree was lighted up at thirty fathoms, with presents for each member of the crew. Captain Sircom received a box of notepaper and an indelible pencil and was allowed to write two letters home. Sircom to D.N.I. Antwerp, November 4 1919.

² Western Trade Routes in force, December 1 1916. Keep 120 miles west of Finisterre and run into Scillies from 9° west.

³ Telegram to Consul, Bilbao, December 10. H.S. 328/794.

These recurring cases of neglect of instructions led to a telegram on December 24, laying special emphasis on the necessity of hugging the coast, crossing the Channel during dark hours and leaving port or land at dusk.¹ Instructions as to routes for neutral ships with cargoes for British and allied ports were then on their way to port authorities, and the enforcement of orders was becoming easier, for, after December 24, a warranty was added to all insurance policies that the owners would instruct masters to comply with the orders of H.M. Government.

U.46 was followed by U.70, Kapt.-Lt. Wünsche, who had returned from her last trip² to south-west of Ireland without a single "sink." This time she came by the Channel, sinking four ships³ on her way (see s. 45) and following the procedure of U.46, on December 22, in about 45° N., 8° W., captured as a tender the Norwegian S.S. *Thyra*, 749 tons, which was on the way from Cardiff to Oporto. U.70 then went on to Cape Finisterre, where she met with small success, for British shipping was keeping well out to sea. On December 24, at 1.30 p.m., in about 43° N., 10° W., she stopped the British schooner, *Harry W. Adams*, 127 tons, carrying 184 tons of dried cod from Nova Scotia to Corunna, and sank her with gunfire after putting the crews aboard the *Thyra*. Two days later, on December 26, at 8 a.m., another small British sailing vessel, the *Spinaway*, 95 tons, from Newfoundland to Portugal, was stopped in 43° 23' N., 10° W.,⁴ and suffered the same fate. Four days passed before she made another capture. On December 30, at 11 a.m., she met two Norwegian steamers off Cape Vilano, near Finisterre, and sank them both. They were the *Edda*, 1,138 tons, going from Seville to Preston, and the *Borre*, 741 tons, on the way to Hull. Her sinkage for the month amounted to eight ships, 13,771 tons, consisting of British steamships two, Norwegian steamships two, French sailing vessels two, British sailing vessels two.

U.82 (see S.87) had meanwhile arrived in the Bay and sank⁵ the French S.S. *Omnium*, 8,719 tons, homeward bound, in 47° 18' N., 7° 18' W., some 115 miles south-west of Ushant, at 8 a.m. on January 2, the day U.70 left the bay. U.70 had kept the *Thyra* with her till December 26, when they seem to have lost one another, and the *Thyra* anchored on December 30 in Port Camarinas, south of Cape Vilano (Spain), where the crews were put

¹ H.S. 328/1034.

² October 13–November 2 1916.

³ December 17, British S.S. *Pascal* (5,587 tons); December 18, French sailing vessel *Eugene Gaston*; British S.S. *Flimston* (5,751 tons); French sailing vessel *Hirondelle*.

⁴ I.D. Vol. 627, cit. M.60466/16. Marine-Archiv List (H.S./Q.21) gives Italian S.S. *Avanti* sunk on December 22, but the name is not mentioned in any British record.

⁵ Lloyd's reported she had been sighted still afloat on January 3. I.D. Vol. 628.

ashore and the ship was taken out to be sunk.¹ The master, however, had spent Christmas very appropriately in throwing all the German bombs overboard; none could be found, and though the cocks were opened the ship remained afloat and was finally towed into Ferrol.² The German crew pulled ashore and took refuge on a German ship at Vigo. These happenings led the Foreign Office to indite another protest on the same lines as that about the Danish S.S. *Gerda*,³ but by that time U.70 was on her way home north-about; she reported herself in the North Sea on January 10⁴ and got safely home on January 12 1917. U.46 had suffered no serious attacks, and U.70 seems to have been equally fortunate.

52. German Minelaying, North Sea.—In the North Sea not a single British ship was sunk by submarines in December, but minelayers were as active as ever, and ten ships (eight British and two neutral) were sunk by mines, of which 216 were laid during the month on the East Coast and off Calais by seven submarines, as follows:—

Date.	Field. ⁵	Minelayer.	Locality.	Losses or Struck.
December 1	247 12	U.C.4	North Galloper	—
December 1	248 12	U.C.1	West Dyck (Gravelines).	—
December 7	253 12	U.C.1	Calais	—
December 7	249 12	U.C.4	Orfordness ..	—
December 8	250 12	U.C.11	Shipwash ..	S.S. <i>Harlington</i> (9th). S.S. <i>Harlyn</i> (9th). S.S. <i>Forth</i> (9th). S.S. <i>Nora</i> (11th). Norwegian S.S. <i>Modig</i> (21st). Norwegian S.S. <i>Graaf- jeld</i> (15/1/17). Norwegian S.S. <i>Brabant</i> (15/1/17).
December 8(ca)	251 18	U.C.46	Flamborough Head.	S.S. <i>Burnhope</i> (14th). S.S. <i>Hildawell</i> (20th).
December 13	22–26 18	U.C.32	Tees	—
December 14	27–31 18	U.C.32	Tyne and Sun- derland.	—
December 15	255 12	U.C.4	Lowestoft ..	—
December 16	254 12	U.C.6	Kentish Knock	—

¹ Apparently off Estaca Vares, 43° 53' N., 7° 42' W.

² Arrived January 3. She was brought in to Vares by Spanish trawlers, who found her on January 2 abandoned and derelict 18 miles N.E. of Estaca. (I.D. Vol. 627. Hardinge, June 25 1917.)

³ M.60778/16. The British Ambassador was anxious to discover what had become of the Germans in the *Thyra*, but no Spanish official had seen them.

⁴ "Have sunk nine steamers and six sailing ships."

⁵ The numbers are the reference numbers of fields in German Minefields. For lat. and long. see German Minefields, O.U. 6020B, for fields laid south of Flamborough Head (Flanders boats). For those north of Flamborough Head (U.C. 31 and U.C. 32) see O.U. 6020A (High Sea Fleet boats). The boat that laid Field 37 (High Sea Fleet, 1916) off Montrose has not been identified.

Date.	Field.	Minelayer.	Locality.	Losses or Struck.
December 16	256 12	U.C.11	Sunk	Danish S.S. <i>Michail Ontchoukoff</i> (17th).
December 27	260 12	U.C.1	Calais	—
December 27	264 12	U.C.4	Orfordness ..	—
December 27	261 12	U.C.11	Sunk	S.S. <i>Zoroaster</i> (29th).
December 28	259 12	U.C.6	Shipwash ..	S.S. <i>Lonada</i> (29th). M.S. <i>Ludlow</i> (29th).
December 30	32-36 18	U.C.31	Tyne and Tees	S.S. <i>Lonclara</i> (4/1/17).

The field laid by U.C.11 on December 8 off the Shipwash was exceptionally destructive and sank three ships almost in the same hour the next day. No sweeping was possible by the Lowestoft sweepers on the morning of December 9 on account of the heavy weather. The S.S. *Harlington*, 1,089 tons, coming from Newcastle to London with 1,500 tons of coal, was the first to suffer, striking a mine about three miles south-west of the Shipwash and a quarter of a mile east of the War Channel. She foundered in 4½ minutes, but all hands were picked up by the S.S. *Harlyn*, 1,341 tons, 2,330 tons of coal, from Newcastle to London, which was a quarter of a mile astern. While the *Harlyn* was picking up the survivors, the S.S. *Forth*, 1,159 tons, northward bound to Leith, with general cargo, came on the scene and at 12.45 p.m., a mile or so to the eastward, struck another mine and went down bows first in ten minutes. The *Harlyn* had no sooner got under way when, at 1.15 p.m., a mile or two to the southward, she struck two mines in succession and foundered in three minutes with a loss of nine men.¹

As soon as the news came in, the Commander-in-Chief, Nore, held up north-bound traffic; south-bound traffic was stopped at Yarmouth and a Q. telegram went out in the morning of December 10.² The Lowestoft sweepers came down that day and swept up 17 mines, some of which seem to have been laid by U.C.4 further to the north. Further north, U.C.46, one of the new boats carrying 18 mines, laid her mines about December 8 in a long scattered line running, to the southward from a spot about six miles east of Flamborough Head. This was another very effective field. On December 11, at 9.52 a.m., the Danish S.S. *Nora*, 772 tons, laden with timber, was blown up about nine miles north-eastward of Spurn Point.³ The *Ness*, Commander A. Keyes, saw her blow up east of the War Channel and at once sent the *Test* to the northward and the *Panther* to the southward to divert traffic inside. The

¹ M.61758, M.61872/16, M.61802/16. The *Harlyn* evidently means S.W. ½ S. of Shipwash, not N.E. ½ E. In O.U. 6020B, Field 250, the position should be 51° 59' 2" N., 1° 44' E., not 51° 49' 2" N. See Plan 11.

Field 250, the position should be 51° 59' 2" N., 1° 44' E., not 51° 49' 2" N.

² 474 Q. telegram, December 10 1916, 0535; H.S. 314/1154.

³ M.011111/16 (*Ness*). Commander Adrian Keyes' report is quite clear, and he gives a chart of the position mined in 53° 41' N., 0° 16' E., and of the sinking in 53° 39' 7" N., 0° 14' E. The Bi-Monthly Minesweeping Statement No. 108 gives the position as 54° 5' N., 0° 35' E. (Off Flamborough Head.)

ship went on fire and, after burning fiercely, was sunk by the *Ness* by a charge under the after-hold. On December 21, some ten miles to the northward,¹ at 6.30 a.m., a Norwegian S.S. *Modig*, 1,704 tons, was mined at 6.30 a.m. and went down in ten minutes, the armed trawler *Gaul*, which was close by, picking up the crew in the dark.²

Two more Norwegian ships, the *Graafjeld* and the *Brabant*, were sunk on these mines off Flamborough Head on January 15.

On December 13, U.C.32 laid mines off the Tees, and the next day at 8.45 a.m. the British S.S. *Burnhope*, 1,941 tons, bound for London, struck one of them just as she left Hartlepool, and went down in three-quarters of an hour. Sweepers were just leaving the river and went at once to her assistance. It was probably this field that was responsible too for the loss of the British S.S. *Hildawell*, 2,494 tons, on her way from Bilbao to Middlesbrough with iron ore, which passed Yarmouth on December 19 and then disappeared. Nothing more was seen of her but a name board washed ashore in Robin Hood's Bay.³

On December 16, U.C.11 laid another batch in her favourite area, off the Thames by the Sunk, which blew a ship up the next day. The Channel from Black Deep, Thames, to the Sunk had been swept that morning by eight trawlers and four paddle minesweepers, and over 20 northbound ships had passed safely out when at 10.30 a.m. the Danish S.S. *Michail Ontchoukoff*, 1,353 tons, with maize from Rosario to Denmark, struck a mine S. ¼ W. 1½ miles from the Sunk and went down in half an hour. The armed trawler *Regardo* had sighted moored enemy mines but the traffic had been released before steps could be taken to stop it.⁴ (Plan 11).

Captain E. C. Villiers of the *Actaeon* thought that the Channel should be carefully swept before traffic was released, but it was pointed out that in the case of long stretches like Lowestoft and Grimsby this would entail holding up traffic for so long that ships would not reach a safe anchorage before dark. D.T.D. therefore was not able to support the suggestion.⁵

A field laid off the Shipwash by U.C.6 on December 28 blew up the paddle sweepers *Totnes* and *Ludlow* within a few minutes of one another, five miles N.S.W. from Shipwash (about 52° 7' N., 1° 45½' E.) on the morning of December 29. The *Totnes* had her bows blown off, and the *Ludlow* her stern. The *Totnes* was towed to Harwich but the *Ludlow* sank at her anchor during the night in 51° 58' N., 1° 29' E.⁶ An hour or so later the British

¹ Lat. 53° 51' N., 0° 16' E.; another report says 53° 56' N., 0° 13' E.

² The unknown wreck found in 53° 54' N., 0° 12' E. (Minesweeping Statement No. 109) was probably the *Modig*.

³ M.61871/17.

⁴ X.8322/16.

⁵ X.8322/16.

⁶ H.S.B. 170/229. See Plan 11.

S.S. *Lonada*, 466 tons, with coal from Newcastle to London, came along and was blown up at 11.50 a.m., sinking in ten minutes.¹

53. The S.S. "Zoroaster" mined off Sunk, December 29 1916.—The last loss in the North Sea is interesting as throwing a sidelight on the issue of Coastal Traffic Instructions. The S.S. *Zoroaster* was a collier, 3,802 tons, on Admiralty requisition, proceeding from the Tyne to St. Nazaire with 5,500 tons of coal for the French State Railways. On December 24 she left the River Tyne southward bound.

Mines were constantly being laid off the Thames and nearly two months before, in consequence of mines found on November 2 off the Sunk Light Vessel,² the War Channel between the Shipwash and Sunk had been announced as dangerous and Traffic Instructions had been issued on November 4 at 6.20 p.m., ordering traffic to pass close to the Sunk Light and then steer east (true) to the red buoys of the War Channel.³ (Plan 11.)

On December 27 then the *Zoroaster* was on her way south. A fresh batch of mines, laid by U.C.6 that night, was found off the Shipwash on December 28 at 8.25 a.m.⁴ Southbound traffic was stopped at once at Lowestoft, and at 1.35 p.m., December 28, a Q. telegram went out warning ships and bases to avoid the Shipwash area. At 12.25 p.m., December 28, an hour before, another batch of mines, laid by U.C.11, was found off the Sunk and reported⁵ to the Admiralty, but apparently no announcement of them was made.

It was evidently the Shipwash field that the Lowestoft mine-sweepers were labouring to clear on the morning of December 29 when the two paddle minesweepers, the *Totnes* and *Ludlow*, were blown up (see s. 52).

Three more mines were found off the Sunk that morning, December 29, and were duly reported to the Admiralty,⁶ and it was evidently on their account that the *Zoroaster* as she came south on December 29 found herself stopped at 12.40 p.m. some six miles northward of the Sunk by a patrol boat and lay for an hour with some 40 other vessels "having to head a little to the west to find a safe swinging berth." She was released at 1.50 p.m. and was proceeding on a course S.W.½S. when at 2.17 p.m., 1½ miles E.N.E.

¹ M.61991/16.

² H.S. 306/461, 474, 564. "Two enemy mines 1½ miles E.N.E. and 6 miles N.E.½E. of Sunk." Reported clear (H.S. 306/816) on November 3.

³ Traffic Instructions W.47: "Steer due east (true) for 3½ miles from Sunk Light Vessel to the line of red buoys." H.S. 306/1024. W. Series dealt with North Sea and East Coast, North of line joining Shipwash and Hook. C.I.O. 331 of March 3 1916.

⁴ H.S. 319/27, 39. December 28, 0858, 3 mines ½ mile W. of Shipwash.

⁵ H.S. 319/99, mines 3 miles and 3½ miles S. 37 W. of Sunk L.V.

⁶ 8.25 a.m., one mine N.E. of Sunk found 8.10 a.m.; 10.20 a.m. two mines; 12.25 one mine 2 miles N.E.; 1.26 two mines 3 miles N.E. by N. H.S. 319/335, 368, 398, 409.

of the Sunk¹ she struck a mine and sank in seven minutes. The report reached the Admiralty at 3.12 p.m., and at 3.20 p.m.² a Q. telegram went out ordering ships to follow 391 Q.³ The *Zoroaster* was some 1½ miles westward of the War Channel when she struck, and as this was regarded as contrary to Traffic Instructions W.47 (issued for the mines found on November 2), disciplinary action was taken against the Pilot and his license was suspended for the period of the war.⁴ (Plan 11.)

Meanwhile, German submarines had been busy on the Holland and Scandinavian routes stopping and searching ships. U.B.6 and U.B.40 were watching Dutch traffic, and on December 8 stopped two Dutch steamers off the Maas, and that night a Zeebrugge force brought the Dutch S.S. *Caledonia* and the Brazilian S.S. *Rio Pardo* into Zeebrugge for search.⁵ On December 29 the Dutch S.S. *Oldambt*, on her way to London, was captured off the Maas, but, losing her way in a fog, came under fire from the German batteries at Ostend before she was finally taken into Zeebrugge.⁶ On the Scandinavian route the German control was even more effective. The High Sea Fleet U. boats stopped and examined some twenty Scandinavian ships during the month and sank 22 neutral ships, of 16,027 tons,⁷ not including another 3,477 tons sunk in the Cattegat, where U.66 was working from December 11–14.

54. Scandinavian Convoy.—Important in the history of convoy are the first definite suggestions for the beginnings of Scandinavian convoy that were made in this month. In the autumn of 1916 Norwegian shipping had suffered heavy losses, particularly in the coal trade, in which 60 per cent. of the Norwegian shipping chartered by the Allies was employed.

As a result, on September 16, the Norwegian Insurance Club raised their premiums for voyages to England and France, and asked the Norwegian Shipowners' Association⁸ to appeal to British authorities to consider if anything could be done to safeguard their ships.⁹

¹ Casualties Report, January 2 1917, says 2 p.m.; letter, December 29 1916, says 2.17 p.m. Position of wreck buoy was 51° 53½ N., 1° 38' ¼ E.

² The War Registry time of despatch is 3.20 p.m., though signal is timed 3 p.m. H.S. 319/415.

³ Issued on November 4, H.S. 306/928. "From the War Channel at a point East (true) from Sunk L.V. follow the red War Channel Buoys then through Stanford Channel and Yarmouth Roads."

⁴ Trinity House, February 9 1917, in X.8635/16. H.S. 1236/447.

⁵ E.1 log, North Sea, December 9/2.

⁶ M.0156/17.

⁷ Norwegian, 11 ships, 9,042 tons; Danish, 7 ships, 4,051 tons; Swedish, 4 ships, 2,934 tons.

⁸ Norges Rederforbund.

⁹ Letter, September 16 1916, in volume titled: "Board of Trade, 25th September, 1916," 5. They had 348 ships of 820,000 tons trading between United Kingdom and allied ports; 145 ships of 342,000 tons trading between United Kingdom and neutral ports; 88 ships of 364,000 tons trading for United Kingdom—a total (no mean one) of 1,526,000 tons.

From August 1 to September 15 they stated they had lost 35,066 gross tons of 20,990,000 kroner value. The Board of Trade appealed to the Admiralty on September 25 1916 and the Admiralty, on October 6, suggested a conference with Norwegian shipowners, emphasising the fact that they could not entertain any proposals for special measures of armed protection.¹

To this effect, therefore, the Foreign Office informed Sir M. Findlay, our minister at Christiania,² on October 14, Norwegian vessels bound for Russian ports were to call at Hammerfest and apply to the British Consul for advice. It was not possible to provide convoys.

On October 17³ the D.T.D. put forward certain proposals to be discussed with the Norwegian Shipowners' Association, namely, that advice as to routes would be issued by the Admiralty, and insurance would be paid for vessels running in the Allied interests.⁴ Would they come over and discuss these questions?

But the Norwegian Shipowners would not come over, and said so on October 24⁵—hence considerable annoyance at the Admiralty—and on October 27 the Norwegian War Insurance Club refused to approve Archangel voyages,⁶ and made a big increase on premiums for voyages to English Channel and Atlantic ports. With great secrecy, negotiations were opened for the assumption by Great Britain of the insurance of Norwegian ships trading in Allied interests; in fact, with such secrecy, that for a time it was only with the greatest reluctance Norwegian owners would permit their ships to sail for England at all.

The outlook at the end of October was dark. Though the heavy losses on the French coal trade continued, German activity was focussed for a time in the North Sea against the Allied imports from Norway and Sweden which were essential to the prosecution of the war,⁷ and whose stoppage would have jeopardised the Allied cause.

Then came a letter on October 30 1916, from Admiral Sir Fred. Hamilton, Commander in-Chief, Coast of Scotland, suggesting a scheme in which Norwegian ships should sail at daylight from Norway escorted by a Norwegian man-of-war and should be met at daylight

¹ B. of T., 25th September, 1916, p. 13; minutes, p. 8.

² F.O., October 14, in *Idem*, 54, 55.

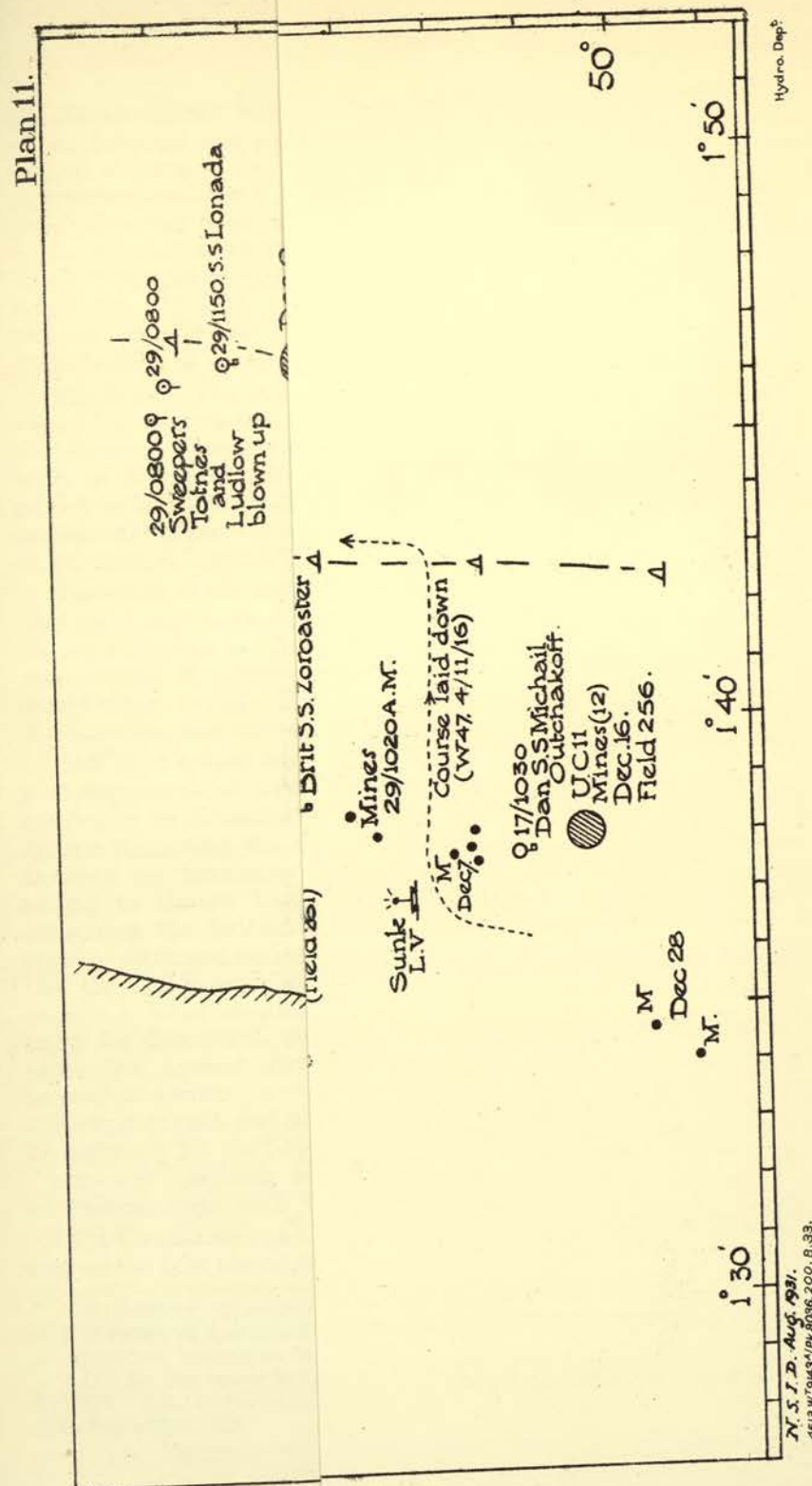
³ *Idem*, 59.

⁴ *Idem*, 59.

⁵ Sir M. Findlay telegram, October 24, however, said that Mr. T. Finley was to be in London and would obtain full power to discuss matters with proper British authorities if it appeared advisable. (*Idem*, 70.)

⁶ From September 26 to October 25 the Norwegians had lost 15 ships in the Arctic.

⁷ Norway: calcium, aluminium, carbide, nitrate of ammonia, pyrites, ferrochrome, nickel; Sweden: ball bearings, iron ore, perchlorate of ammonia; Denmark: cryolite. Paper on Scandinavian Convoy, H.S.A. 102/24.



MINES OFF SUNK LIGHT VESSEL DECEMBER, 1916.

S. 52, 53

WAR CHANNEL

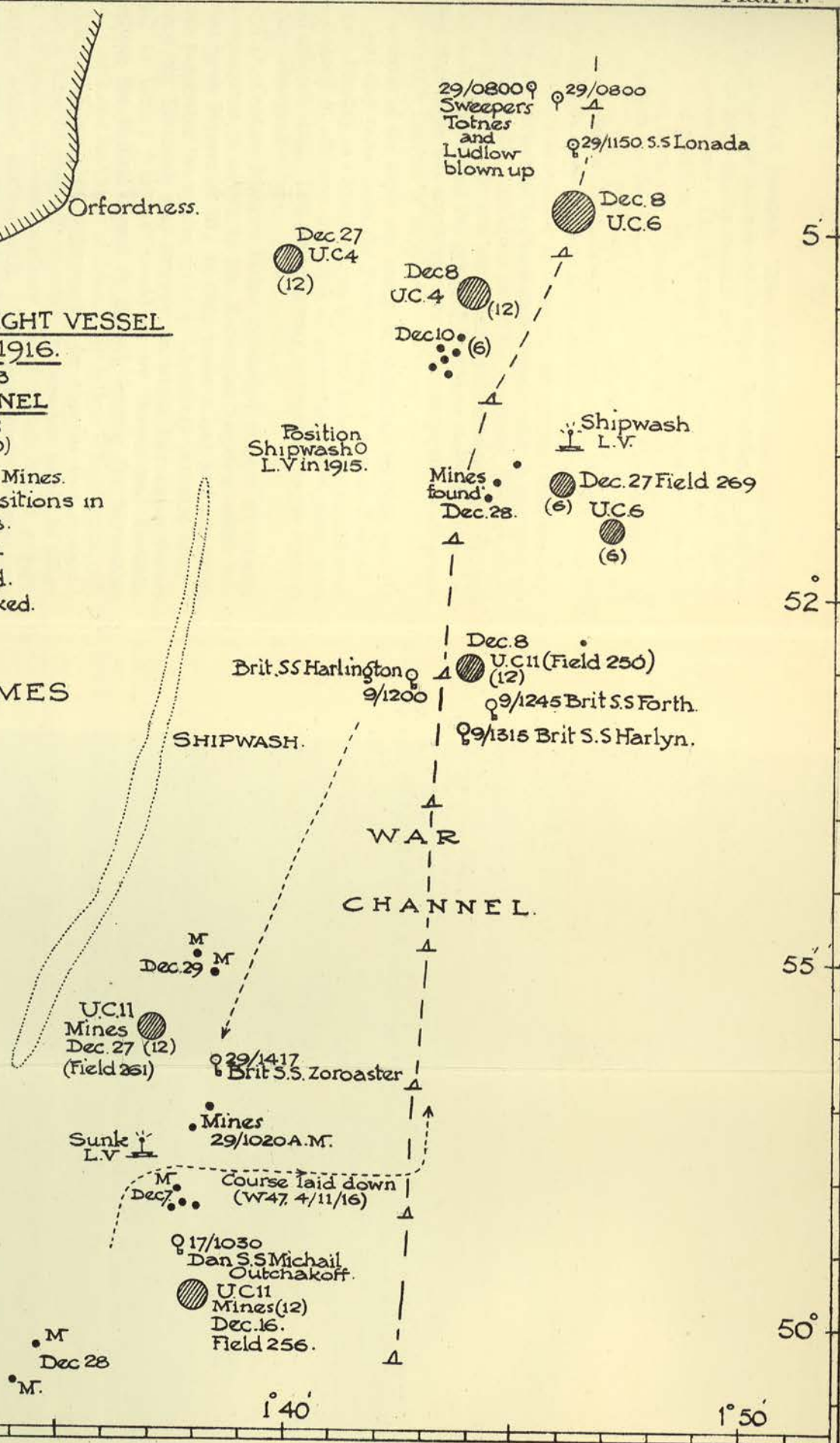
FROM X138

(CHART 1610)

- (6) Minefield 6 Mines.
German positions in
O.U. 6020 B.
- ⊙ Ship sunk
- M Mine found.
- ⊙ Ship Attacked.

THAMES

SHIPWASH.

WAR
CHANNEL.

by British armed trawlers. The Admiralty was not in favour of the proposal and pointed out in reply, November 11, that such a form of convoy, *i.e.*, by neutral men of war, was not recognised in international law.¹ The Foreign Office was, however, already faced with the problem, for Norwegian shipowners were pressing to be released from the "bunker" undertakings requiring them to carry cargoes for the Allies, and Lord Robert Cecil wrote to the Admiralty a "very pressing letter" urging that it was of the greatest importance to indicate that we were adopting every possible form of naval protection for neutral shipping.²

The D.O.D. was opposed to convoy. He thought that a convoy would be no protection to Norwegian vessels, and in any case the provision of suitable vessels was out of the question. The Admiralty reply of November 20 was not, therefore, encouraging. Beyond advice as to routes and the grant of insurance facilities, it did not appear that there was anything to be done except the development of alternative sources of supply.³

The draft of the reply was ready on November 16 1916, but the very next day came from the Foreign Office a wire of November 15, from Findlay at Christiania, to say that unless more confidence was aroused in effective measures of protection, Norwegian crews would refuse to sail. This telegram may be regarded as the start of the Scandinavian convoy.

D.T.D., Captain Richard Webb, proceeded at once to compile a memorandum of advice to the Norwegian Legation which was handed in on November 20; he then wrote a long and important minute suggesting the setting up of a "definitely patrolled route" between the Shetlands and Norway, in which Norwegian vessels sailing to United Kingdom would go by Bergen and Lerwick, consulting the British Consul at Bergen, leaving the Norwegian coast at dark and making it at dawn. Sir Arthur Wilson concurred, but the C.O.S. was not enthusiastic; he thought that it would require a force of about 20 vessels; the weather would be often unfit for destroyers, and auxiliary patrol vessels would require protection against surface craft. The best would be measures somewhat similar to those adopted for the Dutch trade, vessels collecting at each end and crossing on pre-arranged days. It would be necessary for the Norwegian Government to change their present "stand-off" attitude and an officer would be required at Bergen to communicate with the Commander-in-Chief.

The Commander-in-Chief was asked to comment on the suggestion and on the best means of establishing a system of protected sailings.⁴

¹ M.09550/16, November 11, in "Board of Trade, 25th September, 1916."

² M.09568/16, October 31, in *Idem*.

³ M.09568, November 20 1916, in *Idem*, 97.

⁴ D.T.D., November 20 1916, A.K.W., November 20 1916, C.O.S., November 24 1916. A.L. to C-in-C., M.010124/16, November 23 in "Board of Trade, 25th September, 120."

In answer to Sir M. Findlay's telegram, the Foreign Office was also informed that the Commander-in-Chief was being consulted and arrangements would involve a degree of co-operation with the Norwegian Government which they had hitherto not seemed prepared to give.¹

All this time the question of insurance was very much to the fore at the Foreign Office, weaving in and out of the question of protection. From November 2-24, 18 Norwegian vessels had been lost, valued at nearly 13 million kroner.

The Admiralty, and particularly the Operations Division, was anxious to maintain the secrecy of its routes, and it was difficult in any case to introduce any scheme of routing or patrol without the friendly co-operation of the Norwegian Government in Norwegian harbours. This was one of the great obstacles in the way, for the Norwegian Government would not exceed the limits of neutrality, and the same difficulty would probably have faced any plan of convoying ships from America before she entered the war.

On November 30, the matter came before the War Committee. The Foreign Office and the Board of Trade were distinctly disappointed. They did not think the Admiralty reply, of November 20, "met the case." The Chief of Staff (Admiral Oliver) stated that the matter had been under consideration, but difficulties were created by Norway, who would not let British men-of-war enter her harbours. "It had never been contemplated that we should have a big enough Navy to protect the whole of the world's commerce." He was evidently not favourably inclined to the idea, but the Admiralty undertook to do its utmost to provide for the safety of certain important routes.

On December 3 the Commander-in-Chief sent his reply² enclosing a definite scheme, based on the idea that vessels to Norway should cover most of the passage during the dark, be met by armed trawlers at daylight at a definite rendezvous, and be escorted in to Lerwick (distance 50 miles) before dark. He suggested three routes:—

Route A.—(Westbound) between Bergen and Lerwick. Merchant vessels would leave the Norwegian coast at various points between 59° 40' N. and 61° 30' N., reach a rendezvous in 60° 30' N., 0° 30' E., 130 miles from the coast at daylight, where they would be met at dawn by armed trawlers to escort them the remaining 50 miles to Lerwick.³

Eastbound vessels would be escorted out to the same rendezvous, arriving there at dusk and would then proceed unescorted to the

¹ M.010124, November 27, in *idem*.

² M.010677 and M.010723 in *idem*, 190.

³ Allowing for a speed of 8 knots.

Norwegian coast under cover of darkness, arriving there at daylight, while the trawlers remained at the rendezvous during the night to pick up the westbound ship at daylight.

In Route B.—(Alternative westbound without escort) vessels to leave the Norwegian coast in the vicinity of 61° 30' N. at 9 p.m., proceeded due west to a point about 45 miles north of Muckle Flugga, made Muckle Flugga (north point of Shetland) between 1 a.m. and 2 a.m., arriving at Lerwick at daylight.

In Route C.—(Skudesnaes to May Island in the Forth) vessels to leave the Norwegian coast near Stavanger at dusk to pass between the meridians of 0° 30' E. and 2° 30' E. during daylight hours. This short distance of 70 miles should be patrolled by our submarines.

The Commander-in-Chief did not consider a system of convoy desirable then, as the measures suggested should give reasonable security during winter months, but he thought that it might be necessary later.

The proposals were approved by the Admiralty on December 15¹ and D.T.D. suggested the necessary measures. Information would have to be given at Bergen by the Consul, and the British Minister must arrange with the Norwegian Government to instruct all Norwegian vessels trading with Allies to proceed to Bergen. It was thought that the appointment of an officer to the Consulate at Bergen with the status of Vice-Consul would do something to overcome the reluctance of Norwegian masters to accept British instructions, and on December 16 the Foreign Office approved of a naval officer being appointed to set the scheme in motion. But unexpected difficulties arose. The Norwegian Government, punctilious on points of neutrality, refused to pass on any advice or to give any help, and until the insurance negotiations were completed there was no effective authority behind the British instructions. Meanwhile Sir M. Findlay on December 21 suggested that the scheme be worked by the agent of the War Insurance at Bergen.²

There was further delay in finding a Vice-Consul, and it was not until December 26 that the name of Captain Arthur Halsey went to the Second Sea Lord. Weeks elapsed before his appointment and months before he arrived at Bergen.³

Meanwhile, the machinery began very slowly to revolve, and on December 30, the Commander-in-Chief reported that vessels were arriving at Lerwick asking for instructions. This was the beginning of the Scandinavian patrolled route, but it had not started by the end of the year. So slowly do the wheels of any huge administration revolve.

¹ But did not come into force till Feb. 13 (see S.129).

² *Idem*, 242.

³ "Not yet arrived," Findlay, February 16 1917, *idem*, 350.

55. Routeing, December.—The good is the enemy of the best. Routeing was the measure that impeded convoy.

By December 1916, the Routes for Western Trade, issued on November 7, had come into force.¹ These applied to British and Allied merchant ships, but not to mercantile auxiliaries, storeships and transports, which received their route instructions, with certain secret rendezvous, direct from the Operations Division.²

The first reports of the *Moewe* on December 7 dislocated the ordinary sailings and let loose a score of ships³ to hunt for her. The *Moewe* passed out of the North Atlantic, but the submarines remained, and the Western Trade Instructions constituted one of the principal measures for evading them.

They dealt with three principal traffic vents, viz., the English Channel, the Clyde and Irish Sea, and the Bristol Channel; and with three principal destinations: the North Atlantic, South Atlantic and the Bay of Biscay, and Mediterranean.

The first edition, November 7 1916 (see Plan 18), contained 23 routes which may be summarised as follows:—⁴

Route 1.—English Channel to Bristol Channel, by Scillies and Cornish coast.

Route 2.—Bristol Channel to Irish Channel, east of Smalls.

Route 5.—English Channel to Irish Channel, by Scillies, Cornish coast and Smalls.

Route 11.—English Channel to North Atlantic, by Ushant and 47° N., between 5° W. and 6° W.

Route 12.—English Channel to North Atlantic, by Scillies and course west to 9° W.⁵

Route 13.—English Channel to North Atlantic, by Scillies, Tuskar and *South coast of Ireland*.

Route 21.—English Channel to South Atlantic and Mediterranean, by Ushant and lat. 47° N., between long. 5° W. and 6° W.

¹ Case 504, Vol. I. M.09748/1916.

² In December 1916 the number of ships from North America, for which secret instructions were sent, was 119, most of them signed by Captain H. W. Grant (A.D.O.D.) or Rear-Admiral T. Jackson (D.O.D.). For rendezvous, see Home Waters VII. On December 19 a new rendezvous "B" was added in 49° N., 10° W., as an alternative to "X."

³ Armoured cruisers *Drake*, *Leviathan*, *Antrim*, *Carnarvon*, *Roxburgh*, *Berwick*, *Sutlej*, *Descartes*, *Montcalm*, *Jeanne d'Arc*, *Gueydon*, *Dupetit Thouars*; cruisers *Weymouth*, *Amethyst*, *Highflyer*, *Isis*; armed merchant cruisers *Calgarian*, *Edinburgh Castle*, *Orama*, *Macedonia*. H.S. 325/581, 619, 670.

⁴ For details see Technical History, Vol. 31 (C.B. 1515), Control of Mercantile Movements (by Captain Bertram Smith) p. 48. Large gaps were left in the numbering, for additional routes.

⁵ Altered to 10° W., A.T. December 8 1916, 0120.

Route 22.—English Channel to South Atlantic and Mediterranean, by Scillies and course west to long. 9° W.¹

Route 23.—English Channel to South Atlantic and Mediterranean, by Tuskar and *South coast of Ireland*.

Route 31.—English Channel to Bay, by Ushant.

Route 32.—English Channel to Bay, by Scillies and course west to long. 9° W.²

Route 41.—Clyde or Irish Sea to North Atlantic, by Tuskar and *South coast of Ireland*.

Route 42.—Clyde or Irish Sea to North Atlantic, by North coast of Ireland and Tory Island.

Route 51.—Clyde or Irish Sea to South Atlantic and Mediterranean, by Tuskar and *South coast of Ireland* to 10° W.

Route 52.—Clyde or Irish Sea to South Atlantic and Mediterranean, by Scillies and Ushant.

Route 61.—Clyde or Irish Sea to Bay ports, by Scillies and Ushant.

Route 62.—Clyde or Irish Sea to South Atlantic and Mediterranean, by Tuskar and *South coast of Ireland*.

Route 71.—Bristol Channel to North Atlantic, by Tuskar and *South coast of Ireland*.

Route 72.—Bristol Channel to North Atlantic, by Scillies and Ushant and lat. 47° N. between 5° W. and 6° W.

Route 81.—Bristol Channel to South Atlantic and Mediterranean, by Scillies and Ushant.

Route 82.—Bristol Channel to South Atlantic and Mediterranean, by Tuskar and *South coast of Ireland* to long. 10° W.

Route 91.—Bristol Channel to Bay, by Scillies and Ushant.

Route 92.—Bristol Channel to Bay, by *South coast of Ireland* to 10° W., then west of 10° W. until south of lat. 47° N.

This system permitted of an order being rapidly issued by merely quoting the index numbers of the routes open, but it did not give any intelligence of where submarines were working.³ It was a system of directions which gave no specific intelligence as to submarines, and though a change of routes could be quickly sent to the Shipping Intelligence Officers, the latter had no means of informing ships that had already sailed. It admitted of considerable variation, but was not able to meet an immediate situation at sea—for instance, if westbound ships were released, say in the Downs, they might take 30 hours at nine knots to reach the Channel

¹ Altered to 10° W., A.T. December 8 1916, 0120.

² Long. 10° W., December 8 1916, 0120.

³ War Warnings (A.B.M.V.) were issued every night, but were, of course, only available for ships with wireless.

entrance, by which time the situation might have changed. This handicap was greater in the case of homeward-bound ships,¹ whose orders might be a week or a fortnight old.

The policy adopted in November and December was to hold up shipping when a submarine appeared, a policy which might be and was effective, but really amounted to a partial blockade, awaiting only a sufficiently close investment to become complete. Thus, on November 8, in view of a burst of submarine activity, Channel traffic was stopped for all ships except defensively armed merchant ships² with 12-pdr. or above. Two days later, when reports of the doings of *U.50* and *U.49* off Finisterre were coming in, all traffic from the Clyde, Irish Sea and Bristol Channel for the South Atlantic, Bay and Mediterranean was stopped,³ and it was not till November 18⁴ that English Channel traffic was released after ten days' partial closure.

On November 20⁵ the South Coast of Ireland route was closed, but when a submarine appeared off Ushant on November 22 it was reopened, the Ushant route was closed, and directions were given that patrols were to instruct south-bound vessels to pass at least 150 miles to west of Ushant.⁶

On November 26, in consequence of the report of a submarine⁷ off Beachy Head, all traffic to the westward was stopped for two days. It had barely been released on November 28 when it was stopped again⁸ by the report of another submarine. The Commands were informed that vessels proceeding up Channel were to be ordered into port, orders which could not easily be conveyed nor performed on a dark winter's night. During November the Channel had been partially closed to traffic for 17 days.⁹

56. Channel Opened, December 10.—It was still closed on December 1 (except for D.A.M.S.) and the congestion was becoming serious when the Commander-in-Chief, Devonport, on December 7, 10.47 a.m., asked whether eastbound traffic to Portsmouth and westbound as far as Devonport might be allowed to proceed. But a

¹ See cases of *Palacine* (s. 37), *Avristan* (s. 39), *Briardene* (s. 40), and *Flimston* (s. 45).

² November 8, 1955, H.S. 307/805. On November 18 there were 2,028 merchant ships and 126 oilers defensively armed. C.I.D. 2404/1916.

³ November 10, 1712, H.S. 308/257. See also H.S. 328/322, 327, 330.

⁴ Admiralty telegram, November 18, 1855.

⁵ Admiralty telegram, 20/2045.

⁶ It should be remembered, however, that patrols only came into touch with a portion of the traffic and had great difficulty in overtaking ships and communicating at night.

⁷ There was no submarine; the Norwegian oiler, *Caloric*, was mined. Traffic was released November 28 1916, 1425.

⁸ Admiralty telegram, November 28, 2035.

⁹ Open to all ships, November 1 to 8, 18 to 26.

submarine had been reported in that area on December 6,¹ and the Trade Division thought it "not advisable" to release unarmed vessels as far as Devonport, though they did not object to vessels proceeding to the eastward during dark hours pending further news of submarine's whereabouts. The submarine turned up again to the eastward on December 7, and it was not till December 10 that all Channel traffic to the North Atlantic, South Atlantic, Mediterranean² was released via the South coast of Ireland.

Meanwhile traffic from the Bristol Channel via Scillies and Ushant had been held up since November, and on December 13 the French Consul at Cardiff came to the Shipping Intelligence Officer with a request to allow small French sailing vessels to proceed to Brest. The Admiralty gave permission, with the advice to keep close to the coasts on both sides during daylight, to cross the Channel in the dark, choosing the place of crossing and direction "so that the prevailing wind at the time will be a fair wind and will take them right across before daylight."³ How many vessels took advantage of the offer is not known, but only one French sailing vessel, the *Quo Vadis*, was sunk, December 18.

On December 13, a submarine, *U.C.18* (S.42), appeared in the Bay in the approach to Lorient, and on December 15 the Bay was closed except to defensively armed ships from the Clyde and Irish Sea, and was not opened again till December 22. On December 23 a submarine, *U.C.46*, (S.44) was reported in the Bristol Channel and two days later, in consequence of further reports, traffic from Bristol Channel to North Atlantic, South Atlantic and Mediterranean was suspended for a day. It had barely been released⁴ when a report came in from *Q.8* of an attack on her in the Bristol Channel at 9 a.m., December 26,⁵ which made the Admiral, Queenstown (Sir Lewis Bayly) think the route by Lundy Island and the Smalls dangerous.

The Admiralty asked whether he could provide patrols to protect the traffic if it was diverted by the Wolfs Rock to Galley Head⁶ and the Admiral's reply that he could give no certain assurance⁷ indicates the limitations of the system.

57. Routeing, December.—So long as one big traffic vent remained open, the submarine situation did not become acute and the routeing system was able to cope with it and effectively countered it, at least as far as British ships were concerned. An instance of this is the South coast of Ireland route in December. It was opened on

¹ *U.B.37*, which sank Danish S.S. *Halfdan*, 1,307 tons, 20 miles south of Eddystone, December 6, 1510.

² December 10, 1645.

³ If the wind was south-west, there would hardly be only one "place of crossing" to Brest.

⁴ December 26, 1515.

⁵ Lat. 51° 28' N., long. 5° 22' W. H.S. 318/825. Probably *U.C.46*.

⁶ That is direct to the south coast of Ireland, cutting out the Cornish coast.

⁷ H.S. 318/859, 992.

December 5 at midnight¹ for the Clyde and Irish Sea to North Atlantic and *remained unattacked and open the whole month*. The Channel was thereby enabled to despatch a good deal of its traffic to those ports by the same route. Thus the routes "Channel to North Atlantic by Lundy Island, Smalls and South coast of Ireland" (route 13) and "Channel to South Atlantic" by the same route (route 23) were opened to D.A.M.S. (defensively armed merchant ships) on December 5, and on December 10 to all ships, and remained open the rest of the month. (See Plan 18.)

Similarly with the Bristol Channel. The routes by the South coast of Ireland to North Atlantic (71) and South Atlantic ports (82) were opened on December 5, and remained open till December 25, when they were closed for a day (except to D.A.M.S.), owing to reports of a submarine in the Bristol Channel on December 24.²

Another important destination was the Bay. Owing to the pronounced activity early in the month of what appeared to be at least three or four submarines³ in the entrance to the Channel and round Ushant, traffic to the Bay was held up from December 2; by the 8th this activity had diminished, and on December 10⁴ defensively armed ships were allowed to proceed by the round-about route, number 32, that is from the Scillies, 150 miles due westward, down 10° W. to 47° N., then in to Belle Isle. As route No. 1, English Channel to Bristol Channel, was opened the same day, it was also possible for a ship coming down Channel to proceed to the Bay by Lundy Island, Smalls, Tuskar and South coast of Ireland (route 92), which was also open. The Ushant route (No. 31) was of course the most direct route, and as the Ushant area had remained almost bare of reports from December 8 it was opened on December 14⁵ (some four days after *U.B.39* had left it), but on the appearance⁶ of a submarine⁶ there was closed the next day, December 15, except to defensively armed ships. Further activity ensued in the Ushant area on December 18⁷ and the route was not reopened till December 22,⁸ when it remained open till the end of the month.⁹ For British and Allied ships the system was quite effective so long as an alternative route remained open and more or less free from attack. For neutral ships it was ineffective because these routes were not given them.

¹ Route 51, December 5 1916, 2355.

² Telegram, December 25 1916, 0010. This was *U.C.46*.

³ Actually *U.C.19*, *U.B.29*, *U.B.23*, *U.B.27*, *U.B.39*.

⁴ December 10 1916, 1645. (See Plan 18.)

⁵ Telegram, December 14 1916, 1320. H.S. 316/101.

⁶ *U.C.18*; and *A.B.M.V.* went out on December 15, 11 a.m.

⁷ Passage of *U.70* on way to Finisterre.

⁸ December 22 1916, 2055. H.S. 317/1045.

⁹ For routes, see M.09748/16 of November 7 1916, in Case 504, Vol. I. For routes in force, see Trade Division, Western Trade, Vol. I (October 1916 to March 1918.)

There was, however, another drawback. There can be little doubt that the policy of suspending traffic gave rise in shipping circles to considerable misgiving. The policy might preserve ships but it did not maintain communications.

Mines and submarines, too, were not the only difficulties to be faced. On December 23, the steamer *Araby*, 3,303 tons, ran ashore right across the entrance to Boulogne and broke her back, completely closing the port.¹ Troopships had to be diverted to Calais, and as the salvage experts required at least a month to give a partial use of the port, a delay which might compromise the spring offensive, General Haig sent a message to the First Sea Lord begging for his "personal help in ensuring the most active and energetic measures,"² and the help was immediately given.

58. Statistics, Channel, German Submarines.—During the month of December 1916 there were operating in the Channel 12 submarines, as follows:—

TABLE A.

Flanders Submarines, Channel.

Submarine.	Days, December.	Steam-ships.	Sailing Vessels.	Total.	Tonnage.
<i>U.B.18</i> ..	5	2	4	6	1,836
<i>U.B.23</i> ..	10	2	—	2	7,540
<i>U.B.39</i> ..	11	6	2	8	12,250
<i>U.B.37</i> ..	9	3	1	4	6,957
<i>U.C.21</i> ..	12	9	5	14	20,881
<i>U.B.29</i> ..	6 ³	8	2	10	16,722
<i>U.C.19</i> ..	8 ³				
<i>U.C.18</i> ..	14	8	5	13	12,746
<i>U.B.38</i> ..	11	1	3	4	5,162
<i>U.C.17</i> ..	16	1	9	10	2,534
<i>U.C.16</i> ..	7	—	—	—	—
<i>U.C.46</i> ..	12	1	2	3	2,256
<i>U.B.18</i> ..	4	2	—	2	1,669
<i>U.B.39</i> ..	4	—	—	—	—
	Add High	Sea Fleet	boats on	passage.	
<i>U.70</i> ..	2 ⁴	2	2	4	11,670
<i>U.79</i> ..	2 ⁴	2	1	3	2,727
	133	47	36	83	104,950 ⁵

¹ H.S. 318/193, 213, 224.

² H.S. 318/941. December 26, 6.25 p.m.

³ Not certain; did not return.

⁴ i.e., on passage through Channel.

⁵ Total losses by submarines in December 1916 were 152 ships of 263,021 tons, so that Channel was 40 per cent. of whole (Stat. Review, December 23 1918, Appendix A).

This gives for Flanders submarines a total in December of 129 working days, and a sinkage of 75 ships and 89,521 tons, or 695 tons per submarine per day. The average size of the ships sunk was 1,190 tons.

Ireland, S.W., and France, W.—All of these ships were sunk in the Channel or in the approach to the Channel, except as follows:—

	Tons.
Ireland, S.W. (by <i>U.B.23</i>) 2 ships	3,365
France, Biscay coast, east of 5° W., 12 ships	11,776

Ships Attacked.—The total number of ships attacked was 98, of 160,915 tons; of which 16 ships, of 56,997 tons, escaped, i.e. 35.5 per cent. of the ships attacked.

The agency of escape was as follows:—

Speed and gunfire ¹	3
Speed	1
Gunfire	3
Patrols	7
Salved	2

—
16

The average size of the ships that escaped was 3,560 tons, as compared with 1,190 tons for ships sunk; figures that indicate clearly the value of size and speed in combating the submarine. High Sea Fleet boats on passage to the Bay added seven ships of 14,397 tons to the sinkage list.

The Nationality of the ships² sunk was as follows:—

	Steam-Ships.	Sailing Vessels.	Total.	Tons.	Per-centage.
British	11	8	19	40,229	38.4
French	—	23	23	5,578	4.7
Russian	2	—	2	1,564	1.4
Italian	2	—	2	3,156	3.2
Belgian	—	1	1	70	0.7
Norwegian ..	16	1	17	26,403	25.2
Danish	7	2	9	10,935	10.5
Spanish	5	—	5	7,467	7.2
Greek	3	—	3	6,790	6.2
Portuguese ..	2	—	2	2,756	2.3
	—	—	83	104,950	—

¹ Speed here also includes an initial favourable position.

² By Flanders submarines in Channel, and on Irish south coast, and on French Biscay coast; and by High Sea Fleet submarines on passage through Channel.

Mines.—During December, 68 mines were laid by Flanders submarines in the Channel, Bristol Channel and West Coast of France. Vessels striking mines numbered 12. Of these, two were armed trawlers, both of which were sunk¹; the remainder were merchant vessels or fishing craft. Of 32,830 tons mined, 26,330 tons, or 81 per cent., reached harbour, showing the value of tugs in the vicinity of a coastal route. Only one ship of any size was sunk in the Channel by mines, viz., the *Strathalbyn*, off Cherbourg, December 10. (See S.46.)

Attacks on Submarines.—The number of attacks² made on submarines was as follows:—

*Attacks on Flanders Submarines, December 1916.*³

- December 1.—*Q.11* and *U.B.23*, Scillies.
- December 2.—*Q.9* and *U.B.18*, Lizard.
- December 4.—*H.M.S. Llewellyn* and *U.B.18*, Dover.
- December 6.—*H.M.S. Ariel* and *U.C.19* or *U.B.29*, Scillies.
- December 6.—Armed trawler *Foss* and *U.C.19* or *U.B.29*, Scillies.
- December 7.—Armed yacht *Evening Star* and *U.B.23*, Start Point.
- December 8.—British *S.S. Usher* and *U.C.19* or *U.B.29*, Channel Approach, 48° 26' N., 8° 51' W.
- December 8.—Armed trawler *Offa II*, Beachy Head.
- December 13.—*H.M.S. Landrail*, *U.C.19* or *U.B.29*, Dover.
- December 15.—Armed trawler *Whitefriars*, Scillies, *U.B.38*.
French torpedo boat *Gabion*, France, W., *U.C.18*.
H.M.S. Cherwell and *Exe*, Channel, E., *U.C.17*.
- December 16.—Armed yacht *Venetia*, Cornwall, W., *U.B.38*.
Armed trawler *Sitvel*, Channel, E., probably *U.C.17*.
Torpedo boat 82, Portland, *U.C.17*.
- December 23.—Armed trawler *Thuringia*, Bristol Channel, *U.C.46*.
- December 26.—*Q.8*, Bristol Channel, *U.C.46*.

This amounts to 17 attacks in 129 submarine days or an average of one attack on each submarine every 7½ days.

The vessels attacking were as follows:—

Vessel.	Attacks.	Per cent.
<i>Q. Ships</i>	3	18
Destroyers or torpedo boats	6	36
Armed trawlers or yachts	7	41
Armed merchant ship ..	1	6

¹ *Dagon*, December 8, Beachy Head; *St. Ives*, December 21, Falmouth.

² In this list are included only attacks in which the submarine was in some degree of danger.

³ For details, see under submarine attacked, or in Submarine Losses Return (C.B. 1292), or for *Q. Ships* in C.B. 01486. Actions, Special Service Vessels, both of which give M numbers of original papers.

59. **Statistics, Losses, Traffic Escorted, Unescorted.**—The number of ships saved by the direct intervention of patrols, was seven, viz. :—

- December 2.—Danish S.S. *Yrsa*, 884 tons, Ushant, by French patrol *Ardent* (U.C.21?).
 December 4.—British S.S. *Taxandrier*, 4,231 tons, Brittany, N., by French torpedo boat *Claymore* (U.B.39).
 December 15.—British S.S. *Vancouver*, 4,419 tons, France, W., by French torpedo boat *Gabion* (U.C.18).
 December 15.—British S.S. *Red Rose*, 401 tons, Channel, E., by H.M.S. *Cherwell* and *Exe* (U.C.17).
 December 16.—British s.v. *Englishman*, 144 tons, Cornwall W., by armed yacht *Venetia* (U.B.38).
 December 23.—British S.S. *Wm. Middleton*, 2,543 tons, Bristol Channel, by armed trawler *Thuringia* (U.C.46).
 December 23.—British S.S. *Bertrand*, 3,613 tons, Bristol Channel, by armed trawler *Thuringia* (U.C.46).
 A total of 15,251 tons.

The number of colliers, oilers, and special vessels escorted by patrols along the coast in the Channel may be taken at 39, or in round numbers 40 for the month.¹ None of these were lost or attacked, though the oiler S.S. *Aspenleaf* was under escort of the armed trawler *Smew* when mined off the Owers on December 30.²

The Cross Channel Transport Traffic (December 1–31 1916) to France amounted to 948 ships of 1,775,322 tons.³ These ships moved at night from Southampton, Folkestone, Newhaven and Dover under destroyer or torpedo boat escort. The losses were nil, a figure which might well be written in letters of gold.

An estimate of the percentage of losses in unescorted traffic in the Channel is not so easy to arrive at, but the following may be taken as approximate figures :—

Channel, going east	..	..	..	1,010 ⁴
Channel, going west	..	..	..	1,060
				<hr/> 2,070

¹ Dover 39, H.S. 376; Portsmouth 18, H.S. 275; Portland 25, H.S. 223; Plymouth, H.S. 245 does not give escort; Falmouth 38, H.S. 727. These were mostly the same ships passing from area to area.

² H.S. 275/347.

³ Sea Transport 1916. H.S./C.8, Admiralty Returns to C.I.D. (T.A. 1916) in Historical Section, C.I.D.

⁴ These are figures for October 1917 (from Admiralty, Statistics 515, November 21, 1917). Director of Statistics (H.S. T.S.D./S.117) gives 1,306 steamers boarded in Downs in September 1–14, 1916, i.e., about 2,612 for the month.

If average size be taken as 2,000 tons, tonnage moving east and west may be taken as 4,000,000. From this must be subtracted colliers, oilers, etc., escorted, say, 40 (at 3,000 tons) or 120,000 tons, making :—

				Tons.
Traffic, east and west	..	..	..	4,000,000
Subtract escorted colliers, etc.	..	..	..	120,000
Unescorted traffic	..	..	..	<hr/>3,880,000

Tonnage sunk—69 ships in Channel .. 89,809¹

making an estimated percentage of losses for December 1916, in Channel, of unescorted tonnage, of 2·3 per cent.²

60. **Measures, Anti-Submarine.**—Two or three points are particularly noticeable in the Submarine Campaign in December. First, with the exception of the British tanker *Conch*, torpedoed by U.B.23 on December 7, eight miles off St. Albans, Portland, not a single ship was sunk within ten miles of the Channel Coast. Secondly, in the Channel, East, Portsmouth to Dover, where traffic was either coastal or cross-Channel under escort, in the first half of December from December 1–14, *not a single ship was even attacked*, and in the second half the only ships sunk were *two small sailing vessels*. Thirdly, it is noticeable that the 23 French ships sunk were all small sailing vessels. No French steamship was sunk in the Channel or its vicinity.

The principal measures adopted in December, viz., Patrolled Lane and Routeing, have already been described. It remains to mention the day-to-day doings. On November 30, Devonport was asked for two destroyers to escort the *Olympic*, outward bound, via North of Ireland to 13° W., a demand which left none for escort work in the Channel up to December 2.³

On December 1 the Channel was closed for British traffic except for D.A.M.S. (defensively armed merchant ships).

The Commander-in-Chief, Portsmouth, in view of the excellent work done by Portland seaplanes, and greater submarine activity, asked for four Short machines to be sent at once to Calshot, which was approved.⁴

From December 2–5, submarines were very active in the entrance of the Channel (U.B.19, U.C.29, and U.B.18 were all busy there),

¹ From 83 ships, 104,950 tons (s. 58), subtract two ships, 3,365 tons, sunk, Ireland, S.W., and twelve ships, 11,776 tons, sunk, France, W.

² Nothing has been allowed here for cross-Channel unescorted traffic, which probably amounted to a score of small ships (say, 500 tons) daily, say, some 300,000 tons for month. Channel in this case is the area from Dover to 8° W. and north of 48° 30' N.

³ H.S. 312/1266.

⁴ H.S. 86/294.

and on December 2 the Commander-in-Chief, Devonport¹ was asked what steps had been taken to hunt submarines on the Cornish coast,² and replied that Q.14 was cruising in that area.³ She did not, however, sight anything.

The next day, December 3, the Commander-in-Chief, Devonport, asked for six destroyers to be sent to hunt submarines in the entrance to the Channel, and was told that there were none available. The *Acheron* and *Attack* were returning shortly from Queenstown; the *Hydra* and *Lyra* were expected from escorting troop transports to Liverpool, and the *Hope* and *Martin* would soon be back from Dover. By December 5 the closure of the Channel was causing congestion in the ports, and the Admiralty, in view of the activity off Ushant, proposed to send traffic by the South Coast of Ireland route; Admiral Bayly agreed, and this step contributed greatly to the safety of traffic, for that route was almost free from attack during the whole month. On December 6, the British S.S. *Kashmir*, coming up Channel, sighted off the Scillies a submarine sinking a sailing vessel (*U.B.29* or *U.C.19* and Danish s.v. *Marie*), and at once sent out a wireless, bringing H.M.S. *Ariel* out from Devonport, which led to an attack and possibly to the destruction of either *U.B.19* or *U.C.29*⁴ (see s. 40).

That same day, December 6, the Commander-in-Chief, Portsmouth⁵ suggested that as there was no submarine activity in his area⁶ some of the 4th Destroyer Flotilla should be sent to Devonport, which was approved at 3.40 p.m., and Devonport was informed.⁷

He had barely sent it when at 3 p.m. the big P. & O. *Poona*, coming down Channel, hit a mine off Beachy Head, laid by *U.C.21* on November 28, and Portsmouth at once ordered all traffic to keep ten miles south of Beachy Head.⁸ A tug went out from Newhaven and the *Poona* got safely in.

On December 7, in the afternoon, a mine was found off Plymouth which must have been a remnant of the five laid by *U.C.17* in November.⁹

Devonport had four destroyers searching off the Lizard¹⁰ the next day, December 8, and two between the Start and Portland, and this area remained clear for the rest of the month.

¹ Vice-Admiral Hon. Sir Alexander Bethell, appointed December 5 1916.

² This was *U.B.18*.

³ H.S. 313/664.

⁴ M.010935/16.

⁵ Vice-Admiral Hon. Sir Stanley Colville, appointed March 5 1916.

⁶ It remained exceptionally clear for the whole month.

⁷ H.S. 314/61.

⁸ Admiral, Portsmouth 1540. H.S. 314/169, 218.

⁹ Field 240b. O.U. 6020B.

¹⁰ Squares 71, 81, 82 in Chart X.123.

Q.16 (*Heather*) was cruising in the English Channel from December 9-16, but the activity greatly diminished¹ between December 8 and 15, and she had no success.

Losses in neutrals were raising the question of special routes for them from Cherbourg to the Isle of Wight, and Portsmouth was asked on December 15 if this would interfere with Channel transport traffic between Southampton and Havre. Admiral Colville replied "No," but as it would attract submarines to the transport route, suggested Portland to Cherbourg instead.²

On December 17, mines, laid by *U.C.17*, were found off Portland and the next day, December 18, off Plymouth, leading to the closure of the latter port.³

On December 16, D.A.S.D., Admiral Duff, recommending a "Patrolled Lane" of armed trawlers from Scillies to the Thames, pointed out that statistical evidence showed that the risk of attack would be considerably reduced if merchant shipping would hug the coast,⁴ a view amply borne out by subsequent experience.

The *Midge* and *Acasta* were out hunting submarines off Cherbourg on December 17, and this area remained clear till the end of the month. Mines laid by *U.C.18* were found off the Loire the same day, and the port of St. Nazaire was closed. Q.8 (*Vala*) and Q.13 (*Aubretia*) were cruising in the Channel from December 19-24; the former saw nothing; the latter, on December 22 at 3.30 p.m. off Guernsey, sighted a submarine (probably *U.C.18*) sinking a Danish vessel, but the submarine evidently suspected the deck house aft and went down.⁵

The activity of *U.C.18* in the Bay on December 15 and 17 led the Admiralty to ask Admiral Bayly to send a Q ship there if available; he replied that Q.11 had been cruising there⁶ from December 15 and 18 without reporting anything.

The passage of *U.70* through the Channel led to a sudden outburst of activity off Ushant. The Vice-Consul at Rochefort⁷ reported three submarines cruising off the port and 14 British ships held up at La Pallice (I. de Ré). Devonport was asked on December 19⁸ to send all available destroyers to an area off Ushant, bounded by

¹ Number of ships sunk, Channel West and Ushant; December 4, 6; December 5, nil; December 6, 5; December 7, 4; December 8, 6; December 9, nil; December 10, nil; December 11, 1; December 12, nil; December 13, nil; December 14, nil.

² H.S. 311/452, 577.

³ H.S. 316/1043, 1053, 1175.

⁴ X.11012/1917.

⁵ Admiral Bayly recommended that the after house be done away with in Q.11 to Q.16. H.S. 646/421.

⁶ Admiral, Queenstown, called it T route. H.S. 646/414.

⁷ H.S. 317/195. Telegram, December 19, 1715.

⁸ Telegram, December 19, 2045. H.S. 317/251.

lat. 48° 40' N., lat. 49° N. and long. 4° 30' W. and 5° 20' W. The *Owl*, *Achates* and *Contest* went off on the morning of December 20 and no submarine appeared in that area again for four days.

Net drifters were working as usual in the Portland area, off Hartlepool and off the Tyne,¹ and met with the usual lack of success.

The Channel, on account of the constant presence of destroyers, Q ships and patrols, was not a suitable area for submarines operating against submarines, and none worked there for this purpose. In the North Sea, of the Blyth and Tees Flotillas,² 19 British submarines were at sea during the month, working off the Norwegian coast, Skagerrak and Horns Reef. Of these only one saw a submarine. This was G.5, who on December 13 at 11.10 a.m. in 55° 56' N., 5° 22' E., sighted a German submarine on the surface steering N.W., and at 11.55 a.m. fired both bow tubes at her at 2,000 yards. Both torpedoes missed, one breaking surface and running cold. The German saw the torpedo and turned away.³

Of the Harwich submarines, 12 were at sea during the month working in the Bight, off the Maas and off Schowen Bank. Five enemy submarines were sighted, but no attacks could be made.

On December 1, at 8.48 a.m., in 51° 48' N., 3° 22' E, E.55 sighted a submarine and proceeded to attack, but the enemy dived. On December 2, at 1.22 p.m., she sighted another submarine of an U.C. type, in 51° 49' N., 3° 19' E., and turned to attack, but was again frustrated by the enemy's going down.⁴

On December 6, at 11.25 a.m., H.5, in 53° 16' N., 1° 43' E., proceeding west, sighted three miles to the westward a submarine which dived.⁵

On December 12, at 11.50 a.m., E.31, in about 54° 34' N., 3° 30' E., sighted a submarine, and was proceeding to attack when the enemy dived.

E.53, on December 13, had taken a seaplane to the Maas Light Vessel as a decoy, but it only remained afloat a day. On December 15, at 12.10 p.m., she sighted a German submarine three miles north of Schowen Bank, but could not get up to it.⁶

The year came to an end. It was a month of change, of gathering storm and of great preparations, and it was with dark and menacing clouds on the horizon that on Christmas Eve a message of cheer

¹ H.S. 318/95.

² H.M.S. *Lucia*, Capt. Leonard Donaldson (S) Tees; H.M.S. *Titania*, Capt. Stanley L. Willis (S) Blyth. Reports for December 1916 in H.S. 626.

³ H.S. 626/100, Horns Reef Patrol report.

⁴ H.S.A. 272/513.

⁵ H.S.A. 272/504.

⁶ H.S.A. 272/544.

went out from Cleethorpes to all ships, to the Grand Fleet, to all its squadrons, to all bases and commands, to Alexandrovsk and Archangel, to Melbourne and Wellington, to Ottawa and Esquimalt—

"I send you, my sailors and soldiers, hearty good wishes for Xmas and the New Year. My grateful thoughts are ever with you for victories gained, for hardships endured and for your unfailing cheerfulness. Another Xmas has come round and we are still at war. But the Empire, confident in you, remains determined to win. May God bless and protect you."

George R.I.

CHAPTER IV.

NORTH SEA.

JANUARY 1917.

61. Raiders and Convoy.—The New Year brought no abatement of the anxiety with regard to raiders, for by that time three had got to sea and were preying upon trade.

On December 24,¹ Admiral Jellicoe, the First Sea Lord, had foreseen the possibility of having to start cruiser convoys to oppose them and asked the Director of Trade Division and the Chief of Staff to report on the matter. Captain Webb replied that apart from the question of ships available the difficulties would be :—

- (a) The large number of destinations involving a large number of different convoys.
- (b) Delays consequent on assembly.
- (c) Alternate periods of congestion and slackness at ports of loading and discharge.
- (d) Delays imposed on faster vessels.
- (e) Dislocation of service of mail steamers and other vessels running to a fixed itinerary.

The question was mainly one of organisation and he anticipated no great difficulties, though a special Section would have to be created for the purpose.² The opinion of Admiral Oliver, Chief of the War Staff, was not favourable. He thought the provision of men-of-war for escorts would be beyond our resources. On January 4 1917, there were 128 vessels *en route* from Atlantic ports, and monthly sailings amounted to 304.³ Admiral Jellicoe

¹ The *Moewe* had captured nine ships by December 18.

² D.T.D., December 26 1916, in M.0533/16 titled Admiralty, December 24 1916.

³ Table A, signed B. H. Smith, January 4 1917, in M.0533/17.

therefore asked for the figures as regards munition ships alone. The War Staff reply was again unfavourable. Time would be lost by diversion to Halifax, in the assembly of the convoy and by conforming to the speed of the slowest ship.¹ The numbers crossing would be reduced by 10 per cent. to 15 per cent., the losses of munition cargoes from raiders in three months had been only about one per cent. The First Sea Lord thought that the matter might have to be reviewed later, but the *Moewe* passed out of the Atlantic and the danger passed away.²

62. Conference in Edinburgh, January 8.—Admiral Beatty meanwhile was seeking another remedy. After the escape of the *Wolf* into the Atlantic on November 30, the Commander-in-Chief pointed out on December 15 that he could not intercept either raiders or contraband so long as vessels were immune from attack in Norwegian territorial waters. He urged that "we should exercise control over Norwegian territorial waters, visiting and searching vessels and so prevent the practice by which enemy and neutral vessels passed up and down freely without fear of molestation. Norway would not be driven into hostility on this account and if she were we could then make more effective use of our naval power."³ Three days later the escape of the *Prinz Friedrich Wilhelm* emphasised the hindrance to effective operations imposed by the strict observance of territorial waters.

At the Admiralty it was thought that the question was one for the War Council and on December 30, the War Cabinet asked the First Lord to meet the Commander-in-Chief at Rosyth and discuss it.⁴

The Commander-in-Chief sailed from Scapa accordingly on January 4,⁵ and arrived at Rosyth the next day. The Conference was held at the North British Hotel, Edinburgh, on January 8.⁶ No reports nor minutes of the meeting have been found but on January 29 the First Lord reported to the Cabinet the opinion of the Commander-in-Chief that it was not possible to prevent the escape of German raiders coincidently with the respect of neutral territorial rights. The War Cabinet, however, was opposed to any violation of Norwegian neutrality, not apparently on any grounds of juristic principle but for the simpler reason that "British interests would not be served."⁷

¹ Minute, *idem*, January 11 1917.

² M.0533/17 in papers titled Admiralty, December 24 1916.

³ M.011102/16, Interception of enemy raiders, and M.011237/16 in H.S. 874/284.

⁴ H.S. 500/366.

⁵ In *Iron Duke* with 5th B.S., 1st L.C.S., *Castor* and ten destroyers.

⁶ H.S. 346/458.

⁷ M.011102/16. H.S. 500/366.

Another proposal discussed with the First Lord was the possibility of abandoning Cromarty as a secondary base for the northern fleet and making Rosyth the single alternative base, chiefly in order to reduce the number of fleet auxiliaries, but the measure was not considered practicable at the time.¹

63. Conference, Rosyth, January 10.—A further conference took place two days later when Captain George Hope (representing the First Sea Lord) arrived at Rosyth with Commodore Tyrwhitt.

No report of the conference is available, but the questions considered² apparently were:—

- (a) The employment of submarines.
- (b) Mining policy against submarines.
- (c) Use of 10th Cruiser Squadron for blockade and interception of raiders.
- (d) Air Service requirements.
- (e) Bases and release of auxiliaries.

and the future employment of submarines was discussed with Captains (S) from Blyth and the Tees.³ The Commander-in-Chief was evidently in favour of mining on a grand scale, a large building programme of submarines, closer touch between the Commander-in-Chief and Admiralty and a clearer definition of the British task in the Allied naval policy.

64. High Sea Fleet Moving, January 10.—The conference on January 10 was interrupted by a sudden order from the Admiralty to sweep the exits and to be ready to sail at two hours' notice.

At 4.45 p.m. the day before, January 9, the German Commander-in-Chief had ordered the 4th Scouting Group⁴ to carry out a task. It was evidently associated with minelaying for the *Brummer*, *Bremse* and *Stralsund* reported that they had taken their mines aboard, and at 10.20 a.m. one Light Cruiser Squadron and eight destroyers at Rosyth and four light cruisers and eight destroyers at Harwich were ordered to have steam at half-an-hour's notice.⁵

At 11.7 a.m. the Admiralty reported that three German light cruisers fitted as minelayers were leaving the Elbe at noon that day. Both British squadrons were to sail when ready, the Rosyth force to patrol from 2° E. to 3° E. between 54° N. and 55° N., till 5 a.m. on January 11; the Harwich force between Brown Ridge,

¹ The Grand Fleet moved to Rosyth in July 1917.

² In H.S. 141/163, there is a list of heads for discussion, with date January, 1917.

³ H.S.A. 128/92.

⁴ I.D. Vol. 3024, War Diary, January 9, 1915, January 10, 0345.

⁵ H.S. 348/279.

Haaks L.V. and 53° 20' N., 3° 20' E.¹ The signal had barely been decoded when another came in; the High Sea Fleet were on the move and all German Battle and Cruiser Squadrons and Flotillas were assembling in Schellig Roads at dusk.² The orders to the light cruisers were cancelled and the Grand Fleet was ordered to two hours' notice.³

The mines were evidently not laid very far off, for at 3.10 p.m. the *Brummer* reported her task completed. By 7.0 p.m. further signals showed that the German movements were only concerned with Fleet exercises and the alarm subsided.

65. Narvik Iron Ore.—Meanwhile a report had come from Paris of two German ships, the *Aeolus* and *Mercure* (*sic*) coming down from Narvik, and expected to be off Lindesnaes outside Norwegian territorial waters about January 15.

The Fleet were carrying out an exercise in concentration⁴ at the time, but the *Inconstant* and *Cordelia*, 1st Light Cruiser Squadron, were hastened off and, arriving off Feisten on the coast of Norway, lat. 58° 49' N., long. 5° 31' E., started a sweep. The report was found to be correct. On January 16, 9.55 a.m., the destroyer *Onslow* reported a steamer close inshore, which turned out to be the *Aeolus*. She was close to the island of Egero when sighted, and after hoisting German colours anchored in Egersund. The British ships swept northward and south again, but the *Aeolus* was very careful not to venture out; a Norwegian destroyer was keeping a close watch on the British ships as they steamed up and down,⁵ and as the destroyers' fuel was running short, the force had to return without effecting a capture.

66. Patrols on Norwegian Coast.—This experience led the Commander-in-Chief to try another measure. The new submarine, *K.3*, was sent off to patrol submerged outside territorial waters off Stadlandet, with orders to intercept and sink any German merchant vessels emerging from the inner lead, and to attack any enemy submarines.⁶

She patrolled there for three days, January 19–22, but sighted only one merchant vessel of unknown nationality, going north in territorial waters.

To the south the light cruisers, *Constance* and *Cambrian*, were sweeping for three days, January 21–24, off Utsire, and though the weather was exceptionally clear, sighted only two vessels, one of

¹ Special telegram, January 10 1917, 1107.

² War Diary, January 10 1917, 9.59 a.m. (British).

³ January 10 1917, 1132.

⁴ In 58° N., more or less the area in which the Fleet would be likely to "concentrate." For orders and reports, see H.S.A. 332/297, 323–4.

⁵ H.S.A. 332/343.

⁶ H.S.A. 225, January 18.

which was boarded and proved to be a Danish steamer bound from Dartmouth to Esbjerg; the other was inside Utsire Island and was allowed to pass.

67. Anti-Submarine Sweep, January 18–19.¹—Reports of submarines off the Dogger Bank in the middle of the month led the Commander-in-Chief to order a sweep against them with six destroyers fitted with paravanes, parading under the pseudonym of "high speed sweeps." They were to be escorted by two light cruisers and were to sweep from 2° E. to 4° E. (some 60 miles), in lat. 56° 10' N. (lat. of Forth), and look out for armed trawlers which might be accompanying the submarines.

The *Southampton* (Commodore Cecil Lambert), and *Sydney* sailed accordingly from Rosyth that evening with four screening destroyers and six destroyers² with "high speed sweeps."³

The weather was bad during the night, the destroyers lost touch, and Commodore Lambert decided to turn back at daylight. An unfortunate accident forestalled his decision. The hawse pipe was leaking and the Captain ordered it to be stopped. In trying to obey the order Lieutenant-Commander Ralph Ireland and three able seamen were washed overboard and drowned.⁴

68. "E.36" Lost, January 19.—In the south the month was marked by another melancholy loss in the Harwich Submarine Flotilla.⁵ *E.36* (Lieutenant Thomas B. S. McGregor-Robertson), and *E.43* (Lieutenant Allan Poland), left harbour at 7.30 a.m. for two patrol areas off Terschelling.⁶ A strong north-easter was blowing. At 11.26 a.m. just before they left the coast⁷ *E.43* signalled to *E.36* to proceed independently, and herself shaped course 54° at 10½ knots. At 1.30 p.m. *E.36* was on the port beam on the same course, but by 3.0 p.m. she had dropped out of sight.

¹ H.S. 350/337; H.S.A. 341/361 (2nd L.C.S., War Records).

² *Narborough, Pelican, Oriana, Petard, Oracle, Penn, Orpheus, Nicator, Norseman, Nerissa*. H.S. 350/649.

³ For reports on trial of paravanes, see H.S.A. 332/409, also C.B. 0259, p. 14. The sweep was eventually performed by the *Galatea* and *Phaeton* on January 22–24. H.S. 351/357, 693, 696; H.S. 352/355; H.S.A. 339/113.

⁴ The Admiralty, on February 13, ordered the acting-Captain of the *Southampton* to be tried by court-martial under Section 9 of the N.D.A., for that he did negligently perform, etc., by ordering a working party on to the forecable without taking reasonable and seamanlike precautions to ensure the safety of the said working party. The court-martial was held on March 7 1917. H.S.A. 332/371–402.

⁵ Ninth Flotilla, 20 strong, depot ship *Maidstone*, Captain (S) A. K. Waistell.

⁶ *E.36*, between lat. 53° 15' and 53° 30' N., long. 4° E. and 4° 30' E., about 30 miles W. of Terschelling; *E.43*, between lat. 54° 15' and 54° 30' N. and long. 3° 30' E. and 4° E., some 60 miles N.W. of Terschelling.

⁷ Lat. 52° 5½' N., long. 1° 58½' E.

The sea was running fairly high, and at 6.50 p.m. *E.43*, having carried away her bridge screen, eased to 5 knots and turned 16 points to fit a new one. This delay must have enabled *E.36* to overtake her, for at 8.50 p.m.¹ off the Haaks Light Vessel *E.43* had just altered course to north (true) when she suddenly sighted a submarine three points on the port bow apparently steering east (true) only 50 yards off. The helm was put hard-a-starboard and the telegraph full astern, but she was too close to clear. *E.43* struck her ten feet from the stern, rode right over her and saw her vanish on the starboard quarter in the darkness. *E.43* went astern at once but nothing could be seen in the darkness and heavy sea and nothing more was ever heard of *E.36*.²

A suggestion was put forward at this time by the Anti-Submarine Division to institute a submarine patrol of *C* boats to intercept enemy minelayers from Zeebrugge. The boats were to patrol four miles apart in two lines six miles apart across the expected track. Captain (S) was not at first in favour of it. The tides were strong and variable and though it was in theory an attractive idea to station submarines at short intervals apart, in practice they could never keep their relative positions for more than a few hours. The loss of *E.36* may have supported Captain (S's) argument and it was decided that the use of the eight *C* class submarines³ allotted for this purpose should be left to Captain Waistell's discretion.⁴ They were to do good service in that employment.

69. Harwich Force in Action, January 23.—The end of the month was marked in the south by an encounter which illustrates forcibly the difficulties that attend destroyer actions at night. On January 22 a German signal was intercepted⁵ ordering some movement for the 2nd and 6th Destroyer Flotillas. The Admiralty suspecting that they were going to make for Zeebrugge directed Commodore Tyrwhitt at 11.10 a.m. to try and intercept them between the Schouwen Bank and Maas,⁶ and told Dover to send six destroyers to Harwich without delay. As the afternoon wore on, further signals corroborated the Admiralty view.

At Harwich Commodore (T) had six light cruisers, one flotilla leader and ten destroyers ready,⁷ and the *Nimrod* with the Dover contingent was on its way round.

Commodore Tyrwhitt immediately issued orders for the disposition of his force. Briefly it was divided into three sections

¹ Lat. 53° N. 4° E.

² Report of 8th and 9th Flotillas, Captain (S). H.S. 505/28-9.

³ Three from Dover, three from Nore, three from Tyne.

⁴ M.01319/17. Suggestion put forward by D.A.S.D., January 29 1917.

⁵ War Diary, January 1917, p. 70, 9.31 a.m.

⁶ Special telegrams 1917, H.S. 645. On January 27 1917, the position of Maas L.V. was lat. 52° 1' 20" N., long. 3° 53' E.; Schouwen Bank, Lat. 51° 41' 51" N., long. 3° 17' 21" E.

⁷ See Appendix B, Harwich Force, January 23.

about 20 miles apart. The light cruisers were to patrol between the Hinder and the Maas; the *Grenville* and her six destroyers, off the Maas close to the Dutch coast; the *Nimrod* and her ten destroyers, to the southward off Schouwen Bank.

The detailed orders were as follows: the *Penelope*, *Cleopatra* and *Undaunted*, 2nd Division, were to proceed to 52° N., 2° 49' E.¹ and to patrol N. 60° E. and S. 60° W., 7½ miles on each side. They were to close the north end of Schouwen Bank at daylight to prevent the enemy breaking back. The *Centaur* (Pdt.), *Aurora* and *Conquest* (1st Division) were to patrol on a parallel course to the eastward on each side of a position 52° 8' N., 3° 18' E. The *Grenville* was to proceed with her destroyers to the Maas Light Vessel then with one sub-division was to proceed to three miles, S. 6° W. from the light vessel and patrol three miles N.N.E. to three miles S.S.W. The other two sub-divisions were to patrol at 15 knots on parallel courses, two miles apart, on a line of bearing N. 28° W., S. 28° E., from the *Grenville*.²

The Schouwen Patrol was in two sections, the *Nimrod* with *Moorsom*, *Morris*, *Matchless* and *Phoebe* (which were joined by the *Manly* and *Mansfield*) was to patrol between Schouwen Light Vessel and a position five miles S. 74° E. of it. The *Simoom* with *Starfish*, *Surprise* and *Milne* was to patrol between Schouwen and a position five miles N. 36° W. of it, the speed of both patrols to be 20 knots.³

The *Grenville* and her six destroyers were off at 4 p.m.; the light cruisers with the *Simoom* and her three destroyers left an hour later; the *Nimrod* which only arrived from Dover at 4 p.m., left about 6 p.m. It was dark by the time they cleared the Sledway. By 10.30 p.m. all ships were on their patrols. The weather was fine and the night clear. A sharp frost had set in; it was very cold and the ships' decks were coated with ice. The visibility was about a mile. (See Plan 12.)

70. German Force, January 23.—Meanwhile the German leader, Commander Max Schultz, ignorant of the British preparations, and not knowing that he would never see day dawn, was rushing down from the Bight. His force consisted of 11 destroyers of the 6th Flotilla (*V.69* leader, *S.50*, *G.87*, *G.86*, *V.44*, *S.49*, *G.41*, *V.43*, *V.46*, *V.45* and *G.37*). It passed Terschelling at 8.30 p.m. with 95 miles to run to the Maas. At 2.45 it was between the Maas

¹ About eight miles 135° from the N. Hinder light vessel. The dispositions for the light cruisers were made by signal. H.S.A. 149/198.

² From eastward, *Grenville*, *Radstock*, *Sorceress*, *Rigorous*, *Rob Roy*, *Meteor*, *Melpomene*. The *Manly* and *Mansfield* were late and joined *Nimrod* to avoid the dangers of a junction in the dark.

³ Memo. 0082. Sailing Orders, *Centaur*, January 22 1917, in H.S.A. 149/204. There is no information in the orders as to enemy movements, but the *Nimrod* at 6.40 p.m. signalled: "we are looking for a German Destroyer Flotilla coming from the north." *Nimrod's* signal log (37229).

and North Hinder when *V.69* sighted three points on the port bow what seemed to be three or four light cruisers with destroyers astern. He had run right into the *Centaur*, *Aurora*, and *Conquest* steering to the south-west.¹ The *Aurora* (Captain Wilfred Tomkinson) seems to have been the first to sight the German craft (at 2.40 a.m.) on the starboard quarter. By 2.45 they were just abaft the starboard beam about 2,000 yards off, revealing themselves by an occasional glare from the funnels. The light cruisers increased to full speed and the *Aurora* opened fire, followed quickly by the *Conquest* and *Centaur*. It was dark and the British searchlights were not switched on.²

The leading boat fired two torpedoes at the *Aurora* and turned away to starboard under cover of a heavy smoke screen. The *Conquest* saw the splash of the torpedoes and the flash of their discharge and turned away. It was difficult to keep the guns on,³ but a shot got home on *V.69* with heavy damage. Her rudder jammed, she turned helplessly round and was rammed at 2.50 a.m. by *G.41* just as she let go another torpedo. The *Centaur*, turning to W.N.W. to close the target, had sighted a destroyer about six cables on the starboard bow when she had to turn away almost immediately to avoid the torpedo which just missed ahead. Commodore (T) turned to the northward and gave chase. It was pitch dark, and in the darkness the enemy disappeared.

At 2.59 a.m., Commodore (T) sent out a general signal⁴ "Enemy destroyers lat. 52° N., long. 3° 15' E., steering north-east." He ran on to the north-eastward till 3.7 a.m., then turned for a time to S. 30 W., to search for the disabled destroyer. Nothing could be seen of her and, at 3.10 a.m., he shaped course for Schouwen Bank. At 3.33⁵ the *Aurora* sighted a vessel to the south-east stopped on the port beam, but her signal calling attention to it was unfortunately not understood. This was probably *S.50*⁶ which went on and sank the *Simoom*. She had got parted from the flotilla when *G.41* rammed *V.69*, and was making for Schouwen Light Vessel independently.

G.41, whose speed had been reduced to eight knots by the collision, made for the Dutch coast,⁷ and steaming along it as fast as her damaged state would permit, reached the Deurloo at 10 a.m. where she was picked up later by the 6th Flotilla and brought safely into Zeebrugge.

¹ Course, S. 60 W. at 15 knots.

² "Ohne zu leuchten" (German report).

³ *Conquest* fired five 6-inch and ten 4-inch.

⁴ Received *Nimrod*, 3.9 a.m.

⁵ (Note in *Aurora's* signal log). "3.22, sighted vessel off port bow without lights." 3.33, *Aurora* to Commodore (T) (Lamp), "Attention is drawn to S.E."

⁶ The position coincides with that of *S.50* worked back.

⁷ Off Walcheren.

The remainder of the German Flotilla kept together and reaching the Schouwen Light Vessel at seven minutes to four, apparently some eight miles ahead of *S.50*, pushed on for the Deurloo. *V.69's* difficulties were not yet over.

71. The "Penelope," 3.40 a.m., January 23.—The *Penelope* meanwhile had been patrolling to the westward. Commodore Tyrwhitt evidently thought her too near the North Hinder, which was a mark point for German submarines, for at 1.55 a.m.¹ he signalled to her to move her patrol to the south-eastward so as to keep 15 miles off the Hinder. In accordance with these directions she was making to the south-eastward² when at 2.50 a.m. she saw the flash of Commodore (T)'s guns lighting up the horizon to the eastward, and made eastward at full speed. By 3.12 a.m. she had taken up a patrol line again well to the north of Commodore (T) and ran to the north-east till 3.30 a.m. Her position was well chosen to prevent any attempt to break back, for as she came down with the *Cleopatra* and *Undaunted* on a course S. 60 W., at 25 knots, she sighted at 3.40 a.m. a destroyer on the starboard bow some 1,400 yards off. This was *V.69* making to the north-eastward. The *Penelope* challenged and turned four points towards her.³ There was no reply. The three cruisers switched on and opened a heavy fire. The *Penelope's* third shot hit. The *Undaunted* followed with a salvo which wrecked the after funnel. A 6-in. lyddite from the *Cleopatra* burst near the water line. Everyone thought that the German boat was sinking,⁴ and as the light cruisers circled round, men in the *Cleopatra* could hear cries coming from the water.⁵ They could not stop; it was supposed that the enemy had sunk, and the *Penelope* continued on her patrol S. 60° W. *V.69* had in fact suffered heavily. The leader of the flotilla (Commander Max Schultz) and two of his officers were killed. Her after funnel and her after control position were shot down, but she kept afloat and managed to limp into Ymuiden on the Dutch coast fifty miles away. Thence with an escort of 9 Dutch torpedo boats and a cruiser she passed slowly up the coast on February 11 (H.S. 358/363).

72. "Grenville's" Group, January 23 1917.—Meanwhile, Commodore (T)'s signal reporting enemy destroyers⁶ had started a

¹ *Conquest's* wireless log (32977). Time of despatch 1.55 a.m.

² 2.36 a.m. Course S. 30 E.

³ Commodore (T)'s white Very's light manoeuvre. The version of this, issued February 7 1918, directs the Commander of the column to fire a white Very's light low down, the leading ship and every alternate ship to turn four points together to the side of the light. H.S. 475/324.

⁴ *Penelope* to *Undaunted*: "Finish her off." (*Undaunted's* signal log.)

⁵ *Cleopatra* (signal log) 3.55 a.m. (34569).

⁶ "Enemy destroyers," 3 a.m.; received *Undaunted* 3.1 a.m.; *Grenville* 3.4 a.m.; *Nimrod* 3.9 a.m. "Enemy have scattered," made 3.17 a.m.; received *Undaunted* 3.17 a.m.; *Grenville* 3.18 a.m.

series of independent movements. Commander Dundas, in the *Grenville*, remained for a time on his patrol off the Maas, sending out messages¹ to the *Rigorous* and *Meteor* to close. The *Rigorous* and *Meteor* received no messages and made off to the northward to cut the enemy off on his way to Terschelling.² The *Rigorous*, however, did not go far. She had gone barely seven miles when she received Commodore (T)'s signal to remain on patrol and turned back (3.34 a.m.). By the time she reached the Maas the *Grenville* had decided to go north,³ and at 3.42 turned to N.26° E., and, after telling the *Rigorous* and *Meteor* to close, ran northward for some 15 miles. At 4.25 a.m., when news of another encounter off the Schouwen came ticking in, the *Grenville* turned back and reached her patrol again by 5.21 a.m. G 41 was limping along to the Dutch coast at this time, and between 5 a.m. and 6 a.m. must have passed near to the *Grenville*'s patrol lines. But it was still dark and nothing was seen of her. Flanders submarines were evidently lurking in the vicinity, for at 7.30 a.m. a torpedo fired at the *Grenville* missed her and passed under the *Meteor*.

73. "Nimrod's" and "Simoom's" Group.—To turn now to the doings of the southern group. When Commodore (T)'s report of destroyers came in at 3.9 a.m., the *Nimrod* was at the eastward end of her patrol, and, taking the same view of the position as the *Rigorous*, turned northward⁴ at once to cut off the enemy from Terschelling. His signal to Commodore (T)⁵ reporting this movement came in at 3.15 a.m. just as Commodore (T) was sending one out to say that the enemy destroyers had scattered. The situation was not clear, and five minutes later Commodore (T) directed both the *Grenville* and *Nimrod* to remain on their patrols.⁶ The *Nimrod* received this at 3.32 a.m. and turned back (3.36 a.m.) informing the *Simoom* that he was on his way back.

¹ By buzzer (*Grenville*'s report). There is no record of any such messages. No separate reports from destroyers in the *Grenville*'s detachment reached the Admiralty, and it is clear from their logs that the *Grenville*'s report does not give a detailed account of their movements.

² According to the logs, the *Rigorous* returned at 3.34 a.m. then made north again from 3.51 to 4.25. The *Meteor* went steadily northward from 3.28 till 4.30.

³ *Grenville* in her report stated that he shaped course to northward to avoid *Nimrod*, having received a signal direct from *Nimrod* to *Grenville* that *Nimrod* "was proceeding on a course which would take him through my patrol at full speed." The *Nimrod*'s signal was made to Commodore (T) and her course (N. 35 E.) should have taken him 3 miles to westward of *Grenville*'s patrol lines.

⁴ In report N. 35° E.; in log N. 40° E. till 3.15 a.m.

⁵ 3.10 a.m., received 3.15 a.m.

⁶ To *Grenville* 3.22 a.m., received 3.28 a.m. To *Nimrod* 3.20 a.m., received 3.32 a.m.

The *Simoom*'s movements are obscure. Like the *Nimrod*, she may have left her patrol to cover the *Nimrod*'s,¹ but whether she did or not, the main body of the German flotilla passed west of the Schouwen Light Vessel at 3.53 a.m. without being seen.

Some seven miles behind the German flotilla S.50 was steering a precarious course right into the *Simoom*'s path. At 4.13 a.m. then the position was as follows: the German flotilla was well past the Schouwen Light Vessel and clear of all our intercepting forces. The *Nimrod* and her six boats were some two miles north-east of the Schouwen Light Vessel² on a south-west course. A couple of miles westward of the light vessel was the *Simoom* with her three destroyers making N.N.W.³ Suddenly on the port bow a destroyer loomed up steering across her bows at a sharp angle. The *Simoom* at once altered course to port to ram but missed her, passing close under her stern; the after gun got off four rounds. S.50 was too wary; she had turned hard-a-starboard to E.N.E. and let go a torpedo, which got home on the *Simoom* forward, and apparently blew up her magazine. The explosion was seen for miles round. The *Starfish*, which had followed the *Simoom* round, was on her starboard quarter when she blew up. She made after the enemy in the dark. A destroyer loomed up to port and she put her helm hard over⁴ to ram. She was almost on her when she switched on English fighting lights and the *Starfish* had just time to reverse her helm and shave past her stern. It was the *Moorsom*,⁵ the *Starfish* had run slap through the *Nimrod*'s division in the dark.

The *Nimrod* had sighted S.50's challenge of two green lights vertical some minutes before and had barely turned to W.S.W. to cut her off when a heavy explosion flared up in the sky. Almost immediately an enemy destroyer appeared on the starboard bow and raced past some 400 yards off. The guns opened fire, but had barely got off three rounds when the range was fouled by the *Starfish* running close behind S.50 whom she did not see. The *Starfish* turned to ram the *Nimrod*'s division which she took for the enemy and the real enemy disappeared in the darkness. The *Nimrod* proceeded north towards a heavy cloud of smoke, altering to N.N.E. to clear it,⁶ but saw nothing more. (Plan 13.)

¹ *Surprise* who was with her says: "somewhat to eastward of line ordered." Trevor Dawson (*Mansfield*) says: "when returning to patrol after going north in chase of enemy's destroyers." See Appendix C.

² *Nimrod*'s signal log, however, says in note "4 a.m., resumed original patrol."

³ S.50's report says: "with course south-east" but this must be the *Simoom*'s course after she turned. Thompson (*Surprise*) "roughly...N. 36 W."

⁴ *Starfish* report says hard-a-starboard, but *Nimrod*'s plan makes her clearly pass through a west-going line from the northward. H.S. 1289/165.

⁵ *Starfish* says *Morris*.

⁶ Wind E. by N. force 4 at 4 a.m.

S.50 had had enough of it for one night. She was convinced that her passage to Zeebrugge was barred. She had eight men severely wounded, and made for the Dutch coast and so went back to the Bight, reaching the Ems at 1.0 p.m. The German flotilla reached the Deurloo by 4.18 a.m. and later went out to bring in the crippled G.41 which joined them at 10.0 a.m. She had nine dead and eight severely wounded and was sent round to Ostend.

74. Return to Harwich, January 23.—Commodore (T) when he heard from the *Nimrod* at 4.20 a.m. that enemy destroyers had appeared off Schouwen Light Vessel shaped course for it at once. He was four miles off at 4.30 a.m. when he sighted the *Nimrod* and her destroyers south of it. The enemy had disappeared, the destroyers' lights¹ were burning and Commodore (T), after ordering them to switch them off on account of submarines, turned back to his own patrol; he informed the Admiralty that enemy destroyers had been engaged several times and one was known to have been sunk; the *Simoom* had been torpedoed but was still afloat near Schouwen Light; if it were not possible to tow her she would be sunk; the enemy destroyers appeared to have passed south of Schouwen.²

The *Morris* meanwhile had gone alongside the *Simoom* and taken off some 50 survivors. At 4.50 a.m. she was still afloat one mile N.N.W. of Schouwen Light. The foremost part of the ship had been blown completely away. The Captain, Commander Edward Tyrell Inman, had perished. The *Nimrod* sending the rest of his destroyers to the northward proceeded with the *Matchless* to the help of the *Simoom*. At 5.15 Commodore (T) sent orders to the *Penelope* to join the *Grenville* off the Maas at daylight and sweep down to Schouwen Light. The *Morris* was told to take the *Simoom* in tow if possible and if not to sink her. At 6.2 a.m. came a categorical order "Sink *Simoom*." The *Nimrod* went alongside her and as there seemed a hope of saving her got a wire aboard, but it fouled the propellers and an attempt on the part of the *Matchless* was equally unavailing. At 6.21 came a signal from Commodore (T) to return to base. It was daylight by 7 a.m.; no time could be lost, for at 7.25 a hostile seaplane was hovering round watching the work.³ Five minutes later Commodore (T) himself appeared on the scene and finding the *Simoom* still afloat ordered her to be sunk "with despatch." At 7.55 a.m. the guns of the *Matchless* opened on her and the *Simoom* sank beneath the waves.⁴ She was a new ship, but the North Sea winter had been too much for the desert wind. At 8.0 a.m. the *Centaur* shaped course for home; she was joined by

¹ 4.41 Commodore (T) to *Nimrod*: "switch off lights." 4.47 *Nimrod* to T.B.Ds.: "switch off navigation lights" *Nimrod's* (S) (27113).

² Commodore (T) to Admiralty, 0534, received 5.51 a.m. H.S. 352/44.

³ She reported nine British destroyers; one sinking.

⁴ Lat. 51° 40' 30" N., long. 3° 11' 20" E. (position approximate). *Nimrod's* log.

the *Nimrod* an hour later and was back at Harwich by noon. The *Penelope's* division was off the Maas at 7.45 a.m. and picking up the *Grenville's* destroyers swept down to the Schouwen Bank. There was no sign of destroyers though a submarine in the vicinity fired a torpedo at the *Grenville* which passed under the *Meteor*¹ and they shaped course for home arriving an hour after the *Centaur*. On the way back, a gun discharging lyddite shell whose muzzle was jammed with ice burst on board the *Undaunted*, killing two men and seriously injuring Lieutenant Andrew Haggard, R.N., and two others.

The night was over. The encounter had demonstrated once again the difficulty already experienced at Dover of intercepting destroyers on a dark night. It led Commodore (T) to emphasise in his report the necessity of ships remaining on their patrols. "The policy of all ships immediately closing the scene of a night action without orders is incorrect and will most assuredly lead to disaster. The senior officer present must give the necessary orders, and these not being forthcoming, separate units should remain on their patrol." He thought it quite possible (which indeed is now known to have occurred)² that the enemy had passed Schouwen while the *Nimrod* was absent from her patrol.³

Another important lesson of the night was the urgent necessity of an effective star-shell. To switch on searchlights, in Commodore (T)'s opinion, merely increased the chance of being torpedoed, but without some illumination of the target, gunfire at night must degenerate into a mere matter of luck. He was also of opinion that it was a mistake for destroyers in company at night to proceed at nearly full speed. It led to the division becoming disorganised "as was the case of the *Simoom's* division," and to general confusion instead of an organised attack.⁴

75. The Allied Naval Council, January 23 1917.—The very day that the German 6th Flotilla were steering a precarious course to Zeebrugge to help their submarines, an Allied Naval Council was sitting in London to devise an antidote against them. The Allies had rejected the German proposals of peace and America's attempt at mediation had failed. The war must be won at sea, but it was entering on a new phase. The Prime Minister (Mr. Lloyd George) opened the Conference. "The challenge is a tremendous one. The

¹ 7.30 a.m., *Meteor's* course N.N.E., Maas Light S.W. 4 miles.

² The German flotilla passed, however, to westward of Schouwen Light Vessel.

³ Note.—The Germans, however, passed through the *Simoom's* and not the *Nimrod's* patrol.

⁴ Reports of encounter are in M.06438/17, titled Foreign Office, August 26 1917, Commodore (T) to Admiralty, January 24 1917, in H.S.1289/109. Reports were printed for Admiralty use in June 1917, as action with German Destroyers, January 23 1917, M.06438/17, fcap., 16 pp.

Germans without inflicting a military defeat upon us could win the war by destroying our mercantile marine."¹

The Admiralty regarded the submarine menace as the vital consideration and proposed the following measures to meet it:—

- (1) Arming of merchant ships.
- (2) Provision of craft for offensive action.
- (3) Provision of vessels for escort work under the head of defensive action.
- (4) Energetic shipbuilding policy.
- (5) Reduction of unnecessary imports.
- (6) Necessity for unity of action in conserving shipping resources.

The Admiralty also pressed for the withdrawal of the nine² British battleships in the Mediterranean in order to release the 9,000 men locked up in them who were wanted to supply trained crews for small craft "as it seemed wrong in policy to keep an overwhelming force of battleships in the Mediterranean," and there would still remain 12 French and Italian Dreadnoughts to oppose four German and Austrian.

The thorny question of the Chief Allied Command in the Mediterranean and of the 11 zones of command, and of route-ing in the Mediterranean, all came under review. The limits of the zones were revised.³ It was decided to adopt in the Eastern Mediterranean, for the traffic to Salonica and the Aegean, the French system of fixed routes frequently changed, while the British system of dispersion was to be retained between Cape Bon and Port Said, and the British undertook to maintain patrols on the French routes. It was agreed that five⁴ British battleships should be withdrawn, and to allay Italian anxiety, the French undertook that a squadron of battleships should be available at Corfu.

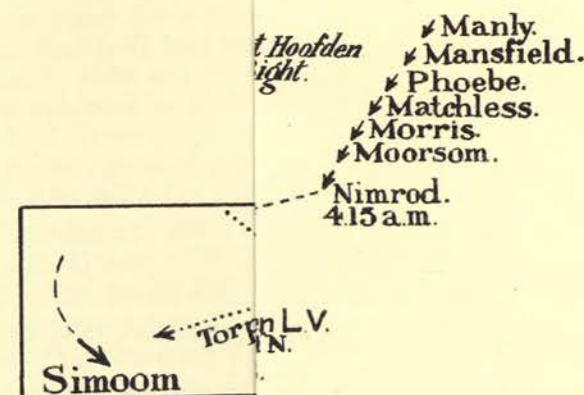
The Allied coal situation was becoming acute. Italy was crying out for coal. In France, blast furnaces were being put out, and the

¹ Report on Allied Naval Conference, January 23, 24, 1917. M.00160/17 (print, 50 pp. and plan of new Mediterranean Patrol Zones). Delegates: For Great Britain—First Lord, Rt. Hon. Sir Edward Carson; Admiral Sir John Jellicoe, First Sea Lord; Vice-Admiral Sir Henry Oliver, Chief of Staff; Sir Graham Greene, Secretary; Commodore Everett, Naval Secretary; Captain George Hope, D.O.D.; Captain Kelly, Liaison Officer. For France—Rear-Admiral Lacaze, Minister of Marine; Vice-Admiral de Bon, Chief of Staff; Rear-Admiral de Lostende, Naval Attaché, London; Rear-Admiral Fatou, Mediterranean Patrols. For Italy—Vice-Admiral Camillo Corsi, Minister of Marine and Chief of Staff; Rear-Admiral Paolo Marzolo, Sub-Chief of Staff.

² Positions and Movements, January 23 1917, p. 10, mentions only eight: Eastern Mediterranean, *Lord Nelson*, *Agamemnon*, *Exmouth*, *Implacable*; at Taranto, *Queen* (flag), *Duncan*, *Prince of Wales*, *Britannia*.

³ For new areas, see Mediterranean Patrol Zones, Chart X.243, January 1917, in Report.

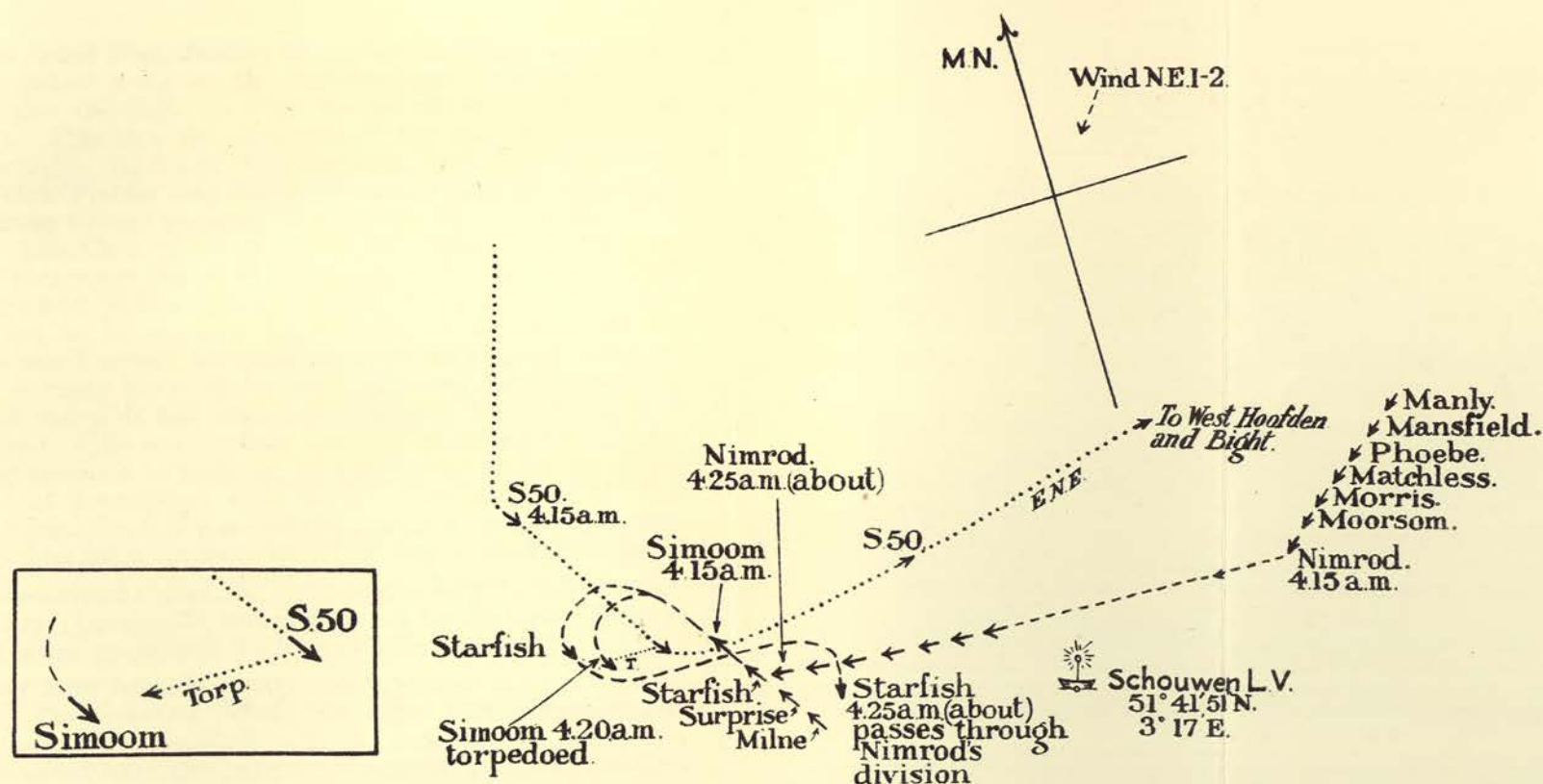
⁴ *Queen*, *Prince of Wales*, *Implacable*, *Exmouth*, *Duncan*.



HARWICH FLOTILLAS

SIMOOM TORPEDOED BY S.50.

4.20 a.m. January 23rd 1917



Note:- Simoom's survivors state Simoom turned to port & passed astern of S.50.

S.50's report states that Simoom was on S.E. course and starboard quarter, 50 metres off when torpedoed.

Movements of Surprise & Milne are obscure.

S.50 says two destroyers cut across her bow.

Starfish says she starboarded her helm to ram and passed between Morris & Matchless, but Nimrod's plan shows her passing through from north astern of Moorsom.

S.50 passed down starboard side of Nimrod's division.

Reports in M.06438/17.

Paris to Marseilles railway had only a week's supply in hand. It was agreed to make a general revision of the employment and distribution of merchant tonnage, and in all Allied countries to eliminate all consumption not wholly essential and to ration essential requirements.

The Conference came to an end without mentioning the question of convoy. The submarine danger had not become acute, and the British views on this point were apparently still those held in 1916.

76. The Grand Fleet, January 23.—While the Allied Council was discussing patrol zones in the Mediterranean, indications came ticking in that the High Sea Fleet was on the move again in the North Sea. This was the aftermath of the Harwich encounter during the night. By 6 a.m. Wilhelmshaven knew that some of the German VIth Flotilla had failed to arrive,¹ and the *Regensburg* (2nd Scouting Group) prepared to sail at 7.30 a.m., evidently to cover the possibility of a retreat to the Bight. By 8.20 a.m. further news arrived that G.41 could only make eight knots, and ten minutes later (8.30 a.m. British) the Chief of the 1st Squadron² issued orders for his ships to weigh anchor 12.45 a.m. with the *Derfflinger* and *Seydlitz*; the latter to be off the Ems³ at 4.30 a.m., evidently to cover the return of the *Regensburg*. By 11.0 a.m. it was known that G.41 had been picked up and that S.50 was past Terschelling.⁴ V.69 was the only one not accounted for, and the *Regensburg* proposed to push out that night to look for her to the north-west of Terschelling with the 9th Flotilla spread off that island by 8 p.m. By 6.15 p.m. S.50 had reached the Ems, and some four hours later came the news that V.69 had reached Ymuiden.

These movements gave rise to corresponding British activity. At 11.25 a.m. (January 23) orders went out for the Grand Fleet to be at two hours' notice and the fleet exits to be swept.⁵

An hour later Admiral Beatty was told that the light cruiser *Regensburg* (2nd Scouting Group) had sailed with destroyers and that the German 1st Squadron with the 2nd Scouting Group and destroyers would leave the Jade at midnight to patrol off the Ems apparently to cover the *Regensburg's* return. If the Grand Fleet was ordered out, the battleships were to be limited to the number that could be effectively screened.⁶ At 4.40 p.m., January 23,

¹ I.D. War Diary, January 1917, p. 74. Also Vol. 597 (32595).

² 1st (Battle) Squadron, with *Derfflinger*, *Seydlitz*; 2nd Scouting Group, 1st Flotilla, 10th Half Flotilla. I.D. Vol. 958, signal 32612.

³ 108 Epsilon.

⁴ I.D. War Diary, p. 76.

⁵ H.S. 352/104.

⁶ H.S. 645/046. Eighteen destroyers were away from Scapa on a ZZ (anti-raider) operation (see S.77), and 10 were carrying out a sweep from Rosyth.

however, the Commander-in-Chief was informed that the *Regensburg* had given up her undertaking and orders for the 1st (Battle) Squadron and scouting groups had been cancelled.¹

The excitement died away and the Grand Fleet reverted to usual notice at 4.35 p.m.

77. Raider Report, January 24.—The alarm had scarcely subsided when there came—from Copenhagen this time—a telegram² to say that the French Consul at Esbjerg had reported a ship, thought to be a German auxiliary cruiser, passing Vyl Lightship on the afternoon of January 23 on its way north. The Commander-in-Chief received this at 7.44 p.m. and at 10.26 p.m. sent out the code word NODECO to assume ZZ disposition, warning the 4th Light Cruiser Squadron, then off the Norwegian coast, to keep a good look-out.³

The Cruisers Squadrons began to move out to their positions⁴—the 2nd, 3rd Light Cruiser Squadrons, the 2nd Cruiser Squadron, in accordance with the orders of December 17 1916.

The *Calliope*, *Comus* and four destroyers were carrying out a sweep on the coast of Norway and had just reached Utvaer Light and were spreading two miles apart, when at midnight came orders to abandon the sweep and take up position for ZZ at the southern end of the 2nd Cruiser Squadron patrol line.⁵ They steered⁶ west and reached their position by 8 a.m. on January 25.

The *Sydney* and *Dublin* in the 2nd Light Cruiser Squadron left Rosyth at midnight on January 24. All unknown to them *U.79*, on her way back from the coast of Portugal, had been brought to a full stop with a damaged engine that day, and having laid hold of the Norwegian ship *Nanna* to tow her to the Bight was creeping down the North Sea at 5 knots.⁷ She passed a long way ahead of them and it must have been past noon on January 25

¹ H.S. 645/049. This was not quite correct. The *Regensburg* had turned back at 10.37 a.m. on account of mines reported by a barrier breaker in 53° 57' N. 6° 25' E. (Note.—There was no British minefield there, the mines must have drifted from *Princess Margaret's* field of May 3 1916.) Then at 11.20 a.m. came S.50's signal that she was off Terschelling and *Regensburg* went out to meet her (11.47 a.m.). At 2.12 p.m. *Regensburg* arranged to search from Terschelling (probably for *V.69*) and was off Terschelling that night. At 4.17 p.m. A.C. 1st Squadron signalled that outposts were only to proceed out if events required it.

² H.S. 352/565 to C.-in-C., January 24 1917, 1925.

³ H.S. 352/607, 616, 621.

⁴ ZZ was issued in H.F. Memo. 0022/520 of December 17 1916 (in H.S.A. 212/4200) as an addition to XX and YY. In XX the 10th C.S. patrolled from Butt of Lewis to Ireland; in YY from Rockall to Ireland; in ZZ from Faroe Is. to the north-east. See Plan 4. For disposition 10th C.S. see Appendix D.

⁵ H.S. 352/633, 11.56 p.m., i.e., on a line north-eastward of Muckle Flugga (Shetlands).

⁶ *Calliope*, however, remained in area A. H.S.A. 342/399.

⁷ War Diary, January, p. 90, and I.D. Submarine Chart, North Sea, January.

when the *Sydney* on the way to Ekersund, crossed her track. They arrived there about 6 p.m. The sea was calm, the sky clear with exceptional visibility and they swept up and down the Norway coast as far as 60° N.

The *Sydney* met and examined ten ships, Norwegian, Danish and British, but there was nothing in them to rouse suspicion and their cruise was uneventful except that the Commander-in-Chief called upon the *Sydney* for her reasons for twice breaking wireless silence¹ during the operations.

The 3rd Light Cruiser Squadron (*Birkenhead*, *Chatham*, *Chester* and *Yarmouth*) left Scapa at midnight on January 24 for their station between the Faroes and Shetlands,² where they spread at 10 a.m., January 25, 318°, 20 miles apart to patrol a course roughly E.N.E. and W.S.W. A heavy south-easterly swell was running, and there they remained for two days; few ships were about and the *Birkenhead* sighted only six and examined one. No further information of the raider had reached the Commander-in-Chief, and on January 27 he recalled his forces.³ The *Sydney* and 2nd Light Cruiser Squadron had already left the Norwegian coast at midnight on January 26.

Once again the information had been too scanty to supply any element of certainty, and there was no raider actually on its way out. It had been the Commander-in-Chief's intention to send the 2nd Battle Squadron to sea for exercises on January 25, but these operations had monopolised a number of destroyers and the Battle Squadron had to remain in harbour for lack of them.⁴

The Commander-in-Chief could see that he would require all he had, for on January 26 he received a telegram to say that the Admiralty anticipated German minelaying on an extended scale on all British coasts by surface vessels as well as submarines.⁵ And at 6.40 p.m. (January 26) went out another, emanating this time from the Minister of Marine, Paris, and a "trustworthy agent" in Holland, anticipating an approaching sortie by the High Sea Fleet.⁶ In view of these possibilities the Commander-in-Chief asked when he might expect the return of the destroyers away—viz., six at Harwich, reinforcing Commodore (T) and Dover against the German flotilla at Zeebrugge, four in the Humber escorting minesweepers, and four at Devonport hunting submarines in the Channel, while the Channel destroyers were escorting transports from Lisbon to

¹ One signal asking for instructions and another reporting a British "Elia" mine. H.S.A. 332/433.

² *Birkenhead*, January 25, noon, in 60° 48' N., 5° 30' W.

³ H.S. 353/483. C.-in-C. to S.O., B.C.F., January 27, 1432.

⁴ H.S. 352/863.

⁵ H.S. 353/23. To C.-in-C. and all bases, January 26, 0112. The grounds for this opinion have not been traced.

⁶ H.S. 353/243.

Brest.¹ They were needed no less urgently in the south, for German destroyers had appeared off Southwold on January 25 at 11 p.m., and after firing some three score shells, which fell behind the town, made off to the north-east.

78. Intelligence, January.—The report of a raider from Esbjerg had set all the cruiser squadrons in motion; reports from Paris of a German sortie had led the Commander-in-Chief to ask for all his destroyers to be sent back to him; the Admiralty was of opinion, too, that the Germans would launch out on minelaying on a greater scale, an anticipation confirmed by subsequent events.²

The Naval Intelligence Division also had information that the large minelayers (*U.71-80*) as well as those of the *U.C.* type could lay their mines in 90 fathoms,³ which seems to have given rise to the belief that they were laying them at sea, for when *U.C.29*, after being asked on January 26 at 9.30 a.m. for her position, reported at 1 p.m. her task accomplished and her position in 57° 3' N., 0° 4' E.,⁴ the Admiralty took the view that she had been laying mines between the latitudes of 56° 45' N., and 58° N.,⁵ and between the coast of Scotland and the meridian of Greenwich. This was a big area, covering a good many square miles, but the Commander-in-Chief was warned to avoid it, except close in shore, till searched.⁶ Though the Commander-in-Chief doubted whether submarines would lay mines out of sight of land,⁷ the S.N.O. Peterhead was told to examine the extension of the Moray Firth South Channel as far as the meridian of Greenwich. The Commander-in-Chief was right. *U.C.29* had actually only laid her mines off May Island,⁸ and it was not till much later in the year that the German began to lay minefields out at sea on the east coast of Scotland.⁹ It was about this time that the post of Admiral of Minesweeping saw a change. Rear-Admiral Hon. Edward Stafford Fitzherbert became Director of Torpedoes and Mining, and Captain Lionel Preston came down from the Grand Fleet to take his place.¹⁰

¹ See H.S. 351/450, January 21. Admiralty to C.-in-C., Devonport.

² H.S. 353/23, January 26, 0112. During 1916 the High Sea Fleet laid only 38 minefields against 298 in the first six months of 1917.

³ H.S. 348/394, January 10, 1735. The source has not been traced. No prisoners had been taken from a submarine minelayer since *U.C.5* went ashore in the Shipwash in April 1916.

⁴ I.D. Vol. 959, (32805) (32827).

⁵ Roughly latitudes of Stonehaven and Dornoch Firth—about 65 miles by 60 miles.

⁶ Admiralty, January 26 1917, 1930. H.S. 645/055. The Tay and Dundee had been closed for mines, January 26 1917, 2.10 p.m.

⁷ H.S. 645/060. C.-in-C. to Admiralty, January 27 1917, 1107.

⁸ In 56° 10' N., 2° 32' W., on January 21 1917.

⁹ German Statement of Mines laid, p. 48, year 1917, field 397, laid in October in 57° 21' N., 0° 48' W., some 25 miles from the coast off Buchan Ness.

¹⁰ H.S. 353/278, telegram, January 26.

79. High Sea Fleet moving, January 29.—The end of the month saw a part of the High Sea Fleet moving again when the 4th Squadron,¹ the *Seydlitz* and *Derfflinger*, the 4th Scouting Group, prepared to put to sea to support an operation under the Leader of Torpedo Flotillas.²

The object of the operations is not known, though it was apparently associated with a search for vessels suspected of something or other, possibly of minelaying. Whatever may have been the object, it was known at Whitehall on the forenoon of January 29 that the 4th Scouting Group would pass Ameland at dusk and push to the north-westward half-way across the Hoofden.³ The Commander-in-Chief had arranged for the battle cruisers to proceed that day to Scapa while the Oxcars boom at Rosyth was being shifted,⁴ and the Admiralty's first step was to order it to postpone sailing for 24 hours⁵ and to have steam at 1½ hours' notice after 8 p.m. There followed the usual measures for a possible raid on the coast. Dutch traffic was stopped; and Ramsgate and Yarmouth were told to hold up all sailings.⁶

It was evidently decided at first to operate only with submarines, and at 11.12 a.m. Captain (S)⁷ was told that a large force of German light cruisers and destroyers might advance that night on a line between the Haaks light vessel and lat. 52° 20' N., long. 3° 38' E.⁸ He was to station three or more submarines on the route with the hope of a chance of torpedoing them in the moonlight.

During the afternoon more information came in. At 3.9 p.m. orders went out for the German Battle Squadron to weigh at 12.45 a.m.; the 4th Scouting Group was to be in 54° 12' N., 6° 56' E.⁹ at 4.30 a.m.—the battle cruisers off the Ems and the battleships off Nordeney.

The situation was reviewed again in the evening, and it was evidently decided to send out Commodore (T) as well, for at 7 p.m.

¹ War Diary, January 1917, p. 98, January 29 1917, 0911. On January 10, Admiralty informed C.-in-C. that in the High Sea Fleet the old 4th B.S. (*Wittelsbach*, *Schwaben*, etc.) had been broken up; the 3rd B.S. had been split up into a new 3rd B.S. (*König*, *Grosser Kurfürst*, *Markgraf*, *Kronprinz*, *Bayern*) and a new 4th B.S. (*Kaiser*, *König Albert*, *Prinzregent Luitpold*, *Kaiserin*). H.S. 348/444. This information, being based on intercepts, did not appear in the Monthly Return.

² War Diary, January 1917, p. 102, January 30, signal 0855.

³ To 52° 20', opposite Lowestoft. War Diary, January 26, 0838, and January 29, 0911.

⁴ H.S. 352/263. The work of shifting the boom was to commence on January 29 and to be completed by February 8. H.S.A. 36 (Grand Fleet telegram) C.-in-C., Rosyth, to C.-in-C. January 20 1917, 1735.

⁵ H.S. 354/100, January 29 1917, 1122.

⁶ H.S. 354/129, 152, 203, 315.

⁷ Captain Arthur K. Waistell.

⁸ i.e., roughly parallel to and 30 miles from the Dutch coast.

⁹ Point K, i.e., about 22 miles north of the battle cruisers.

the Admiralty ordered all auxiliary vessels to be recalled,¹ and just before eight o'clock Commodore (T) was told to raise steam in all available destroyers. He was informed that a strong force of enemy light cruisers would reach 52° 20' N., 3° 38' E., about midnight; his destroyers were to patrol between Harwich and Lowestoft and were not to go eastward of 2° 30' E.²

Captain (D) embarked in the *Grenville* and sailed at 9.40 p.m. with 12 destroyers³ with orders to keep the flotilla concentrated and cruise in the swept Channel between the Shipwash and Corton Light Vessels. The *Grenville's* orders were to look out for enemy destroyers and attack them immediately if seen; to fire a White Very's light if sighted to starboard, a Red Very's light if sighted to port, and to switch on fighting lights.⁴ The night was cloudy, the destroyers patrolled up and down in the War Channel and saw nothing. They were back in harbour by 1 p.m.

For the submarines the night was more exciting. At 8.30 p.m. *E.56* sighted⁵ a vessel without lights and was forced to dive. At 9.45 p.m. *V1*, which had left Yarmouth that day to patrol off the Texel, was half-way across⁶ when she sighted three destroyers close on her starboard bow, and had to dive with shells bursting over her.⁷

The only boat that actually had an opportunity of using her torpedoes was *E.29*, Lieutenant-Commander Herbert W. Shove, who at 9.52 p.m. in 52° 44' N., 3° 51' E., sighted four destroyers in line ahead steaming slowly up and down. He closed on the surface to within 800 yards of them and let go two bow torpedoes, both of which missed.⁸

At 10.45 p.m. *E.42*, some 12 miles to the southward in 52° 30' N., 3° 50' E., saw three destroyers looming through the falling snow, and had to go down at once.

Whether the object of the German sortie was to attack trade or to cover a projected sailing of *V.69* from Ymuiden, the results were meagre enough. January 29 saw the last movement of the German Fleet before the commencement of the unrestricted submarine warfare. It ended in nothing and it is not uninteresting to compare its limited and futile advance with Lowestoft raid of April 24 1916. In the gap that lies between them can be discerned the paralysing

¹ The code word went out at 9.45 p.m.

² H.S. 645/072, January 29, 2016. 2° 30' E. was altered to 2° 15' E. at 11.30 p.m.

³ *Surprise, Starfish, Minos, Melpomene, Radstock, Rob Roy, Milne, Rigorous, Sable, Portia, Lennox, Lance.* Comm. (T's) Diary. H.S. 247/48.

⁴ *Grenville* signal log (26629), January 29, 2330.

⁵ In 52° 21' N., 2° 47' E., latitude of Southwold.

⁶ Lat. 52° 38' N., 3° 12' E.

⁷ B98 of German II Flotilla stated she fired at a submarine in 52° 50' N., 3° 25' E. War Diary, January, p. 102.

⁸ H.S. 505/31.

effect on the German Battle Squadrons of the Battle of Jutland and the cramping reaction of the new submarine campaign. The German battleships never moved beyond Borkum. On the British side the battleships did not even have to raise steam.

80. British Minelaying Policy, January 1917.—The new year ushered in the policy of large scale minelaying in the Bight,¹ decided on at the conference of September 13 1916. Opinion on this point had suffered a variety of changes. When the war broke out, the Navy was unprepared for minelaying on a large scale. Opinion at the Admiralty was in favour of keeping the seas as open as possible for the battle fleet.² Supplies were deficient; we had only one pattern of mine (Naval Spherical, Mark III, usually termed the "Service" mine) and barely 4,000 of them. The policy appears to have been to confine minelaying to the laying of lines of defence for certain areas.

Then came the incursion of the submarine, and the sinking of the *Cressy*, *Hogue* and *Aboukir*, September 1914, which led to the laying of mines in the approach to Dover, October 2 1914.

After Scarborough raid, January 24 1915, the Commander-in-Chief was in favour of holding minelayers loaded and ready to put to sea to work in conjunction with the fleet, but the Admiralty did not consider the old *Naiad* class suitable for this purpose, apart from the difficulty of locating minefields laid hurriedly and in circumstances of stress. The idea of laying mines in the Bight was, however, adopted and the first field was laid off Amrum on January 8 1915. Larger and faster vessels were required for this purpose and from February to May things stood still while they were being got ready. In May 1915 a large field was laid in the Bight, followed by another three months inactivity, imposed by defects in the sinkers of the British Elia mine; and an enormous amount of time and ingenuity was wasted in trying to improve what was later recognised as an unsatisfactory design. By August, however, laying could be resumed and, by the end of 1915, 4,538 mines had been laid in the Bight, of which 1,450 were laid in one night, the largest minelaying operation of the war, previous to 1918.

During 1916, owing to the shortage of both mines and minelayers, for the large ones had been busy on the Belgian coast, work in the Bight had been left largely to the *Abdiel* and the submarine minelayers. Seventeen fields and 1,782 mines only were laid in this year, making a total of 6,320 mines laid in the Bight up to the end of 1916.

The organisation was evidently not satisfactory, for in August 1916 Rear-Admiral R. S. Phipps Hornby was appointed to enquire into and report upon the mining service of the fleet. His report has not

¹ See H.W. VII./S. 102.

² For Admiral of the Fleet Sir Arthur Wilson's views in January 1915, see H.S.843/90.

been seen, but the institution of the Mining School, as a branch of the *Vernon*, for the design, trial and development of mining material was the result of this enquiry.

On the representations of the Commander-in-Chief in September 1916, the old policy was finally scrapped and it was decided to undertake a policy of extensive minelaying in the Bight and to lay another complete mine system outside the fields laid in 1915-16. This was the policy decided on for 1917, but it was handicapped at first by lack of mines.

81. British Minelaying, January 1917.—In January seven fields were laid, totalling 712 mines. The first¹ was laid on January 1 by the *Wahine* escorted by two destroyers about 45 miles W. by N. from Heligoland. It consisted of 180 service mines without sinking plugs, and though the area round about was continuously notified by the Germans as dangerous, it never seems to have been swept up or located. The next field,² was laid by the *Abdiel* on January 5 in about 54° 30' N., 6° 34' W. It consisted of 80 service mines without sinking plugs and was probably responsible for the loss of the German armed trawler *Uhlenhorst*, which struck a mine on February 2 some four miles east of its charted position. Sweeping was going on in the vicinity for twelve months or more. The submarine *U.B.22* was mined and sunk near it a year later, January 19 1918, though her loss was attributed to another field.³

On January 10 1917, the Commander-in-Chief, Grand Fleet, represented the pressing need for the formation of a mining organisation at the Admiralty capable of dealing with mining operations on the largest scale, which, by closing the Bight, would bar in the German submarines. He considered that 80,000 mines would be required. The Admiralty were not prepared to set up a new mining organisation, nor did they consider resources sufficient for so big a task. They asked in return for a detailed scheme.

The Commander-in-Chief in reply,⁴ on January 31, suggested a barrage about 50 miles from the Jade⁵ with a double line of mines laid at depths of 30 and 60 feet, 40 to 50 feet apart.

The distance to be mined was 155 miles, to be sown with shallow and deep and ground mines, requiring about 54,000 moored and 5,700 ground mines.⁶

There were available or due at the time 34,000 mines,⁷ but neither they nor their sinkers were satisfactory, and actually at

¹ Field 130, Captain Lockhart Leith's History and Chart X. 126.

² Field 110. Chart X. 126, 14/3/19.

³ Field 92, laid by *Abdiel*, January 18 1918.

⁴ H.S. 850/25.

⁵ Through the following points: 55° 10' N., 8° 30' E.; 55° 10' N., 7° E.; 54° 15' N., 5° 50' E.; 53° 30' N., 5° 50' E.

⁶ This was an Admiralty estimate. H.S. 850/28; H.S.A. 85/540.

⁷ Service 22,000, Elia 12,000.

the end of January there were only 300 mines ready for service;¹ the new "H" mines could not be ready for some months, and in these circumstances the Admiralty replied that the matter was under consideration.² Orders were being placed to bring the number up to 100,000, but it was not till the latter part of 1917 that efficient mines began to be available in any quantity.³

82. "E.46" and "Abdiel."—The work, however, went on slowly but steadily. On January 16 1917, *E.46* laid a field of 20 mines some five miles north of Borkum Island. It was discovered by the end of the month and by the middle of March was reported clear. The mines were fitted with 38-day plugs, but there seem to have been some still active in it, for on May 9 the German armed trawler *Mettler Kamp* struck a mine and sank two miles north of its position, and on June 4 the minesweeper *M.23* was mined and sank three miles south of it.

The *Abdiel* laid the next field⁴ on January 24 about 70 miles W.N.W. of Heligoland, consisting of 80 service mines fitted with 38-day plugs. It was discovered five days later and no vessels appear to have been sunk by it.

The next day, January 25, the *Princess Margaret* and *Wahine* laid the largest field of the month, about 60 miles north of Ameland, consisting of 277 British Elia and 175 service mines.⁵

The Germans do not seem to have discovered it. The area in the vicinity had been notified as dangerous on account of the *Abdiel's* field of January 24 (*see supra*), and the 38-day plugs which had been used possibly took effect before the sweepers got so far. *E.48* the same night laid a field of 20 service mines ten miles west of Lister Deep, which was located on February 15 and cleared before the end of the month.

The last field of the month was laid by *Abdiel* on the night of January 29 about 15 miles south of Horn Reefs. It ran right across one of the German swept channels and was discovered on February 2. Great efforts were made to clear it, though it was not till the end of March that this was accomplished. Of the total of 912 mines laid in the month, the *Abdiel* had dropped 240, the *Princess Margaret* and *Wahine* 632, and the submarines *E.48* and *E.46* 20 each. This finished the minelaying for January. Months were to elapse before it was possible to begin mining on a larger scale.

¹ Lockhart Leith, cap. VIII, Vol. 2/221; the first field of pattern H.2. mines was laid on September 2 1917.

² M.01233 in H.S. 850/31.

³ C.-in-C.'s letter, M.0441/17 in H.S. 850/11, also Captain Lockhart Leith's History, cap. VIII; H.S.A. 85 and H.S. 843.

⁴ Leith's Field 111.

⁵ Field 89.

CHAPTER V.

GERMAN SUBMARINES.

83. **German Submarines, January 1917.**—At the beginning of January only three German submarines were working in the Atlantic and four in the Channel, viz. :—

Off Spain and in the Bay ..	U.70, U.79, U.48
In the Channel approach ..	U.82
In the Channel	U.B.18 U.B.39 and U.B.23.

The Bay and the area round Finisterre remained during the month the principal focus of operations in the Atlantic and an account of the cruises there and in the S.W. approach will now be given. (Plan 15.)

84. **"U.70," Bay, returned January 12.**—U.70, Lieutenant-Commander Wunsche, was still active in the Bay. On January 1 she met somewhere about 45° 24' N., 8° 58' W.¹ the Greek S.S. *Tsiropinas*, 3,015 tons, and sank her, and that night at 10.30 p.m. in 46° 11' N., 7° 44' W., sent the French s.v. *Aconcagua*, 1,313 tons, to the bottom. The next day, January 2, as she steered north-east, she met at 7.30 a.m. in 46° 42' N., 7° 2' W., the Spanish S.S. *San Leandro*, 1,491 tons, from Malaga to London and dealt with her in the same way. At 1.50 p.m. in 47° 36' N., 6° 20' W., the Norwegian S.S. *Odda*, 1,101 tons, from Huelva to Rouen was sunk by gunfire. U.70 was then on the outskirts of the Channel and, striking across to Ireland, on January 4 at noon in 49° 57' N., 8° 39' W., sank the Russian s.v. *Ruby*, 890 tons, going from Sapelo to Fleetwood. She returned north-about, and off the Orkneys on January 9, at 3.45 p.m. in 59° 37' N., 4° 18' W., sank by gunfire the British S.S. *Excellent*, 1,944 tons, a small collier going from Cardiff to Swarback Minns. She reached home safely on January 12, having sunk in January, 9,754 tons.

85. **"U.79" off Spain, December 24–January 27.**—The brunt of the attack fell on the Teneriffe area and the Bay. U.46 was already on her way home; U.70 turned home on New Year's day.

U.79, Lieutenant-Commander Jess, remained in the area. She had left the Bight about December 24 and proceeded by Dover Straits, which she passed at night near Buoy No. 3; there she had to submerge for a destroyer and touched bottom, and before reaching the Varne, which was burning brightly, had to dive again thrice for destroyers on patrol.²

¹ Gayer 4/50, 105 miles north of Cape Ortegal.

² C.B. 01370 A, p. 8, (report of U.79).

She sank three ships¹ in the Ushant area before she went on to the coast of Portugal.

There her flail fell heavily on neutral shipping. On New Year's day, at 3.45 p.m., in 41° 30' N., 10° 12' W., 60 miles from the coast of Portugal, she met the Norwegian S.S. *Laupar*, 1,407 tons, on the way from Malaga to Glasgow, and sank her with bombs, towing her boats afterwards towards land. U.C. 37, on her way to the Mediterranean, was some 30 miles to the southward of her and that night stopped the Danish S.S. *Charkow* which U.79 stopped again on January 2 at 10.30 a.m. as she came north, and again allowed to proceed. The Norwegian S.S. *Older*, 1,402 tons, was not so lucky. She was on her way from Cardiff to Gibraltar with 2,986 tons of coal and at 11 a.m., in 41° 9' N., 7° 31' W., was stopped and sunk by shell fire. The instructions for ordinary British shipping then in force warned the Gibraltar traffic to keep west of 10° W. till south of 47° N.,² but the instructions given to neutral ships were of a much more general nature. The next day U.79 was apparently close in to the Portuguese coast where, on January 3 at 8.30 a.m., in 39° 28' N., 9° 30' W., she stopped and sank a small Portuguese s.v., the *Valladares I*, 124 tons, laden with figs. She then worked down the coast between 10° W. and 9° 30' W., and the next day, January 4 at 8 a.m., met in 36° 56' N., 9° 45' W., off Cape St. Vincent the Italian S.S. *Angela*, 2,422 tons, with coal from Port Talbot to Citta Vecchia, which she sank with a torpedo. The report reached London two days later on January 6. On she went to the south and at 3 p.m.³ January 4, in 35° 58' N., 10° 15' W., met the Japanese S.S. *Chinto Maru*, 2,590 tons, from Marseilles to Barry, and sank her with gunfire. Ships of any importance were then being routed well to the westward, and three days elapsed before U.79 found another victim.

She was then on her way home, keeping out to 12° W., some 150 miles from the coast, which brought her into the track of British ships. On January 7 at 11 a.m., in 39° 43' N., 12° 13' W. (lat. of Bordeaux) she met the British S.S. *Bampton*, 4,496 tons, on the way from Genoa to the Tyne for orders. The *Bampton* sighted her to the N.E. and at once turned to W.S.W.; the sea was rough, the ship was armed with a 12-pdr. and, hidden by occasional rain squalls, got away. Three more days passed. On January 10 at 11.55 a.m., in 45° 31' N., 11° 29' W., she fell in with the British S.S. *Knight Companion*, 7,241 tons, an Admiralty collier going from Barry to Malta. The ship was steering to the S.E. at 11½ knots when she saw, 3½ miles on the starboard bow, a submarine, which

¹ Danish S.S. *Johan*, 826 tons (26th); British S.S. *Copsewood*, 599 tons (27th); Norwegian S.S. *Ida*, 1,300 tons (27th).

² Telegram, December 26 1916, 1515 (Route 51).

³ She was said to have reported herself in 36° 49' N. 8° 27' W. at 2.45 p.m. The position may have been taken in wrongly. It could not have been U.C.37, which was then entering the Straits of Gibraltar.

opened fire. The *Knight Companion* turned to east, fired a couple of rounds from her 4.7-in. gun and escaped. Outward-bound British ships had orders at this time to keep to westward of 10° W. till south of 47° N., though homeward-bound ships were keeping out to 14° W. Four hours later, at 5.45 p.m., January 10, in 45° 50' N., 11° 50' W., U.79 attacked the British S.S. *Brookwood*, 3,093 tons, on her way to Port Said with 4,500 tons of coal. She was unarmed, had no wireless, and after receiving 15 hits, was abandoned and sunk by gunfire. She was on a route given her by the Shipping Intelligence Officer at Cardiff; the information arrived at 6.30 p.m. on January 15 from the survivors who had been picked up by the Norwegian S.S. *Myrdal*, and were landed at Cardiff that day. The sinking of the *Brookwood* was U.79's last effort before she turned for the long journey home round Ireland. Her engines were giving trouble and she took a fortnight to reach the North Sea. There on January 24, she stopped the Norwegian S.S. *Nanna*, on the way from Cadiz to Trondhjem with salt, and made her tow her to the Bight, which she reached safely on January 27, crossing, several hours ahead, the track of British light cruisers scouring the North Sea for raiders at the time (see S.77). She had sunk eight steamships and one sailing vessel, of 14,619 tons¹ and had been out for a whole month, which considering the disabilities of these clumsy, big minelayers, stands out as an exceptional performance.

86. "U.48" off Spain, December 27-January 26.—U.48, Lieutenant-Commander Buss, left the Bight on December 27, apparently to work between 44° N. to 42° 30' N. and 10° W. to 12° W. In the North Sea, on December 29, she sank the Russian S.S. *Tuskar*, 3,043 tons, off the Shetlands and was located two days later by directionals 18 miles off the Flannan Islands² on December 31 at 2.20 p.m.; it was probably on this account that Q.12, the *Tulip*, Commander E. L. B. Lockyer, R.N., a convoy sloop of 1,250 tons, armed with one 4-in. and two 12-pdr. left Berehaven on January 2 to cruise south-west of the Fastnets.³

On January 3 at 8.15 a.m. Q.12 was in lat. 51° 30' N., 10° 55' W. steering S. 60° E. in a heavy sea and a strong westerly wind when a shell burst ahead of her. Flashes could be seen in the morning twilight on the port quarter; the seventh round hit the ship and a submarine could be seen dimly coming up astern. Q.12 altered course four points to port to bring the submarine on the port quarter with wind and sea astern. Q.12 then made a signal: "Cannot distinguish your flag—come nearer" (V.M. Code pdt.) which the submarine was sufficiently sensible not to obey. At 9 a.m. she was still about 1,200 yards off when Q.12 opened fire. The first shot

¹ Gayer 4/51 says eight S.S. and two s.v. of 16,497 tons.

² Off the Hebrides.

³ H.S. 647/12.

just missed the conning tower; the second seemed to hit; the submarine went down and Q.12 dropped a depth charge on the spot. The evidence was considered sufficient to justify the conclusion that the submarine was sunk; a reward of £1,000 was paid, and in view of the hazardous nature of Q service, Commander E. L. Lockyer was given a bar to his D.S.O., Sub-Lieutenant Leonard C. Warder, R.N.R., received a D.S.C., and three men a D.S.M.¹

U.48, however, was undamaged² and went serenely on towards Finisterre. On her way she met a big prize. On January 5 at 12.15 p.m. she sighted in about lat. 44° 45' N., 10° 50' W., the French S.S. *Ville du Havre*, a large ship of 5,025 tons, homeward bound from Saigon to Dunkirk with 9,000 tons of provisions. She was armed with a small gun of 65 mm. and was steering N. 61° E., 9½ knots when U.48 opened fire on her port beam; turning away at once and steering south and west into the sea she managed to escape, though the submarine was firing steadily at her for nearly half an hour. Her security, however, was short-lived. At 5.25 p.m. she resumed her course as darkness fell. But U.48 was following close and lying in wait in the bright moonlight was able to get a long shot at her at midnight. It missed, but another at 3.25 a.m. got home and sent her to the bottom.³ The crew, except two men, were picked up by a Norwegian ship and landed at Lisbon. The news reached Whitehall on January 11 at 10.30 a.m. confirming the presence of another submarine in the Bay.

U.48 went on to the south-west and on January 6 at 9 p.m. in 43° 59' N., 11° 40' W., met the French S.S. *Alphonse Conseil*, 1,591 tons, on her way from Nantes to Oran in ballast, and torpedoed her without warning. The news reached London on January 8, 9.55 p.m., the first sign of a new attack on the Spanish coast route. There in the Finisterre area U.48 cruising for a week some 70 miles from land, between 43° N. to 44° N. and 11° W. to 12° W. sank and captured some six ships of which four were colliers.⁴

¹ H.S. 647/44 V.A. Queenstown, February 8 1917, also C.B. 01486, p. 15.

² In her report she merely states: "patrols met with off Skelligs." C.B. 01370/8.

³ Lat. 45° 10' N., 11° 15' W. M.61286/17. (150' N., 15' W., from C. Villano).

⁴ January 7, 4.20 a.m. Norwegian S.S. *Borgholm*, 1,719 tons, Newport to Gibraltar, coal (bombs).

January 7, 11 a.m. Greek S.S. *Evangelos*, 3,773 tons, Algiers to Dunkirk, wine and hay (bombs).

January 8, 11 a.m. Captured Norwegian S.S. *Tholma*, 1,896 tons, Cardiff to Genoa, coal, sunk, January 10, 4.20 p.m. (bombs).

January 12, 7.30 a.m. French s.v. *Émeraude*, 182 tons.

January 12, 3.30 p.m. Norwegian S.S. *Vestfold*, 1,883 tons, Hull to Cette, coal.

January 14, 1.15 p.m. French S.S. *Sydney*, 2,694 tons, Cardiff to Bona, coal.

January 15, 8.30 a.m. Norwegian S.S. *Esperanca*, 4,428 tons, Spezia to Barry, captured; sunk January 16.

By January 17 she was on her way home north about, and on January 19 in long. $11^{\circ} 25' W.$, west of the Fastnets met her last victim, the British S.S. *Nailsea Court*, 3,296 tons, from Algeria to Barrow. The *Nailsea Court*, was armed with a 12-pdr. and was evidently a valuable ship for she had been met by the Queenstown sloop *Myosotis* which at 2.30 p.m. was taking station on her port beam,¹ when the ship was suddenly torpedoed without warning, and went down in a quarter of an hour,² the whole of her crew³ being saved by the *Myosotis*.

U.48 was off St. Kilda on January 21 and there in $57^{\circ} 53' N.$, $9^{\circ} 14' W.$, at 8.35 a.m. she raised her periscope and fired a torpedo at the armed trawler *Walpole*.⁴ It missed, and as the *Walpole* opened fire the submarine went down. Four armed trawlers proceeded to search for her and she was seen again on the surface by the armed trawler *Saxon* at 2.30 p.m. in $58^{\circ} 18' N.$, $90^{\circ} W.$, but dived when three miles off. She reached the Bight safely on January 26.

Interesting from the routeing point of view is the case of the British S.S. *Amazon* which had a narrow escape. She was a large Royal Mail ship of 10,037 tons, which left Liverpool for the Plate on January 10, and was attacked by *U.48* on January 13 in lat. $42^{\circ} 24' N.$, long. $10^{\circ} 7' W.$, i.e., about 57 miles from the Spanish coast, off C. Finisterre. She was on her way south at 9.25 a.m., when a torpedo missed her stern by a bare 20 feet. The submarine rose, but the *Amazon* zigzagging at full speed opened fire at 5,000 yards with an old 6-in. B.L. gun, and sent *U.48* down considerably scared.⁵

Now the *Amazon* left Liverpool on January 10⁶. Her voyage was Irish Sea to South Atlantic for which the route in force⁷ was number 51, directing ships to keep west of $10^{\circ} W.$, till south of $47^{\circ} N.$ She was in $10^{\circ} 7' W.$, when she was attacked, and was therefore obeying her route instructions which did not, however, prevent her running straight into the reported position of a submarine.

¹ M.0589/17 and M.60972.

² It was thought she had been mined.

³ Like all crews in these days a composite one. It consisted of Swedes 4, Greeks 5, Spaniards 4, Dutch 1, American 1, Russian 1, French 1, Maltese 1, British 10.

⁴ H.S. 351/349, 629. The *Patuca* merely passed the *Walpole's* signal and was not herself fired at (*Alsation's* log, 31301).

⁵ The *Amazon* put into Vigo at 3 p.m., leaving at 5.30 p.m., January 11. The German Consul asked for her internment but she was allowed to sail under Spanish Minister of Marine Order of May 15 1915, which permitted ships exclusively destined for commerce to be defensively armed. Foreign Office, January 26 1917.

⁶ The report of the French S.S. *Alphonse Conseil* had reached Whitehall on January 7.

⁷ Telegram, December 26, 1915. "Make Tuskar, etc." Note.— $9^{\circ} W.$ was altered to $10^{\circ} W.$ on December 5 1916.

The case also supplies an instance of the distinction drawn between homeward and outward bound ship routes, a token of the old reliance on route dispersion for the protection of ordinary traffic. On January 2, the French Naval Staff had issued orders for ships from the south, bound for French ports, to keep 200 miles from land between Vigo and C. Penas;¹ and on January 7, the Admiralty sent similar instructions to the S.N.O., Gibraltar, that no vessel was to pass within 200 miles of Cape Finisterre;² the route, therefore, was considered dangerous to homeward bound ships on January 2, and it is not very clear why it should have remained open for ships outward bound.

Though the reports of *U.48's* sinkings were nearly all in by January 15, it was not till January 19 that the South Atlantic route, down $10^{\circ} W.$, was closed to all British ships not defensively armed.³ By that time *U.48* was on her way home where she arrived on January 26, having sunk ten steamships and one sailing vessel, of 29,481 tons.

She had been attacked once by *Q.12* on January 3, on her way out. When the report of the sinking of the Greek S.S. *Evangelos*, January 7, came in on January 13, the Admiralty asked Admiral Bayly at Queenstown if he could send a *Q.* ship to work off Finisterre and he replied that *Q.5* would be sent as soon as her refit was complete on January 23.⁴

87. "U.82" to the Bay, December 20-January 18.—Meanwhile *U.82*, Lieutenant-Commander Hans Adam, which had started on December 20, and had gone north about,⁵ had been working between $46^{\circ}-49' N.$, and $5^{\circ}-7^{\circ} W.$ Her biggest prize was the French S.S. *Omnium*, 9,167 tons, homeward bound with a cargo of railway sleepers. On January 2, at 8 a.m., she was 120 miles from Brest in $47^{\circ} 18' N.$, $7^{\circ} 18' W.$, proceeding east at eight knots when a submarine five miles off on the port beam opened fire on her. The *Omnium* had no gun and her wireless had been damaged in a gale. She stopped and was abandoned, and finally went to the bottom, though her cargo of timber kept her afloat for some time.⁶

In this area between January 1-5, *U.82* met and sank four neutral ships: the Swedish S.S. *Goosebridge*, 1,925 tons, on January 1, 10.30 a.m.; the Danish S.S. *Viking*, 761 tons, Sunderland to

¹ i.e., to westward of $13^{\circ} 10' W.$

² January 7, 1915, H.S. 347/678.

³ Telegram, January 19 1917, 2105.

⁴ H.S. 349/159.

⁵ On December 23 at 8.30 p.m. in $57^{\circ} 46' N.$ $2^{\circ} 8' W.$ she fired a torpedo at H.M. Destroyer *Pellew* which missed.

⁶ I.D. Vol. 628 and Etudes, January 1917, I.D. Vol. 726. She was seen derelict in $47^{\circ} 12' N.$ $6^{\circ} 20' W.$ on January 3.

Setubal, January 3, 10 a.m., whose master stated he had received no instructions as to her route except to pass two miles off the Eddystone;¹ the Italian S.S. *Calabro*, 1,239 tons, from Cartagena to Middlesbrough with ore, January 4, 5 p.m.; and the Danish S.S. *Ebro*, 1,027 tons on January 5 at noon, on a south-west course. *U.82* had been out 17 days, however, before she came to close quarters with a British ship. This was the British S.S. *La Rosarina*, 4,948 tons, on her way from the Plate to Plymouth. On January 6 at 12.20 p.m., this ship was in the Channel Approach, lat. 48° 51' N., 6° 58' W.; the day was fine, the sea smooth, and she was making 12 knots on a course N. 53° E., when fire was suddenly opened on her at about 6,000 yards from the starboard quarter. She at once brought the submarine astern, opened fire with her 4.7-in. gun and escaped. The *La Rosarina* had called at St. Vincent, where she had received instructions to steer for a point 400 miles west true² from Finisterre and thence to Plymouth. On January 6, however, and for some days before, the A.B.M.V. War Warning had warned all homeward bound vessels, except those bound for the English Channel through lettered rendezvous, to make the Fastnet (Ireland S.W.). The master had received the War Warning, but in view of his position considered it best to maintain his course—which took the ship straight in to a German submarine. Though her speed saved her, the D.A.S.D., Rear-Admiral Duff, expressed the opinion that it was useless to send out war warnings if ships took no notice of them.

About two hours later, January 6, at 2 p.m., a few miles to the eastward, 48° 50' N., 6° 56' W., *U.82* met the British S.S. *Beaufront*, 1,720 tons, carrying 2,300 tons of iron ore from Bilbao to Middlesbrough. The *Beaufront* was steering N.E. at 8 knots, when a submarine came up on the starboard beam and opened fire. The ship was abandoned and torpedoed, and about 3 p.m. the crew were picked up by the Swedish S.S. *Aldebaran* on her way to Gibraltar, which might have suffered the same fate had not a destroyer³ appeared, which drove the submarine down.

The master of the *Beaufront* had been told at Bilbao to make the coast of Ireland and steer along it for the Tuskar, a route which would have taken him 120 miles to the westward. His excuse was that he had not enough coal for this route and, therefore, stood up for mid-channel, as he saw several other ships doing the same thing.⁴

¹ I.D. Vol. 628; H.S. 347/517 telegram, Gibraltar, January 6. For details and positions, see I.D. Vol. 628.

² i.e., in 18° W.

³ Not identified, possibly French.

⁴ M.60982/17 titled N.87/1917. The *La Rosarina* seems to have been the only one.

This was the only British ship sunk by *U.82*. Ships for the Bay were then passing as close to Ushant as possible,¹ and were off *U.82*'s beat. *U.82* arrived home safely on January 18, having sunk six steamers of 15,839 tons.

88. "U.C.37" to Mediterranean, December 23.—*U.C.37*, on her way to the Mediterranean had also passed Ushant on December 28 and, keeping some 30 miles off the Spanish coast, sank one Italian, two Norwegian and two Greek steamers, and one Russian and three French sailing vessels.²

On January 4 she was 60 miles west of Gibraltar Straits when, at 12.5 p.m., she met and sank by gunfire the British S.S. *Wragby*, 2,371 tons, unarmed, on Admiralty Service, with 5,000 tons of coal, from Barry to Gibraltar.

89. "U.44" (Spanish Coast), January 1-25 1917.—*U.44*, Lieutenant Wagenfuhr, left on New Year's day for the Spanish coast, north-about. Her luck was small. On January 9 she broke her port screw shaft and had constant trouble afterwards. Only one ship fell to her credit. This was the British S.S. *Baron Sempill*, 1,606 tons, on the way from Glasgow to Huelva, which she met on January 16 at 7 p.m., in 48° 49' N., 11° 45' W. The ship was unarmed and, after missing her with two torpedoes, *U.44* rose and sank her with bombs. Her crew, after a long voyage in boats for four days and 20 hours, were picked up off the Irish coast. Little is known of *U.44*'s subsequent cruise. She got home on January 25 with three British fishing vessels³ she had captured in the North Sea. She had sunk one steamer of 1,606 tons.

90. "U.84" January 1-25, Scillies Approach.—*U.84*, Lieutenant-Commander Walter Roehr, left the Bight with *U.44* on New Year's Day, going north-about. She cruised from the south of Ireland down to the latitude of Ushant. Her first torpedo was fired off the Fastnets. There, on January 9, at 9.10 a.m., in 51° 5' N., 9° 50' W., she sighted the British S.S. *Alexandrian*, a Leyland Line ship of 4,466 tons, from New Orleans to Liverpool. The *Alexandrian* was proceeding on a north-easterly course at 9½ knots when *U.84*, three miles away, opened fire on the port beam. The ship had no gun; she was then 20 miles S.W. of the Fastnets, and though her S.O.S. was answered by Crookhaven and Land's End, shells were falling

¹ Route in force No. 61, December 26, 1515; this remained in force till January 26, 0515.

² January 1. Norwegian *Britannic*, 2,289 tons. January 2. Greek *Dimitrios Goulondris*, 3,744 tons; Greek *Aristotelis C. Joannou*, 2,868 tons. January 3. Norwegian *Fama*, 2,417 tons; French s.v. *Notre Dame*, 228 tons; French s.v. *Capricieuse*; Italian *Luigi Ciampa*, 3,711 tons; Russian s.v. *Seemel*, 209 tons; French s.v. *Liberté*, 166 tons.

³ *Agnes, Vera* and *George E. Benson*.

round her fast. She was abandoned and torpedoed by *U.84*. But the *Myosotis* was hurrying down to her help and arrived in time to drive the submarine off. The ship was towed into Berehaven and safely beached. She should have been met by the *Myosotis*, but there had been some ambiguity as to her route. The master had been given a lettered rendezvous P¹ opposite the Blaskets in 52° N.; he stated that on January 7 he received a message to pass through rendezvous Q² and steer for Fastnets; but Queenstown at the time was only able to keep P route patrolled, with the result that the *Alexandrian* was not met, though she was finally saved.³ *U.84* went on to the southward, and the next day, January 10, in the latitude of the English Channel, sank two ships and chased a third. At 10 a.m., in 49° 28' N., 10° W., she met the Danish S.S. *Harald*, 1,970 tons, Tunis to Dublin, with phosphates, and sank her with bombs; six hours later, at 4.30 p.m., in 48° 55' N., 10° 8' W., she met the Norwegian S.S. *Bergenhus*, 3,606 tons, with coal from Newport to Italy, and sank her with bombs, putting the crew on board the United States S.S. *Borinquen*, which she stopped for the purpose. A large transport, the British S.S. *Inventor*, 7,679 tons, was in sight, and at 5.30 p.m. *U.84* opened fire on her. She at once brought the submarine astern and returned the fire with a 4.7-in. gun. The fourth shot, which seemed to cause a violent explosion, actually fell close enough to fill the conning-tower with a drench of spray, but the weather was bad and, with the fall of mist and rain and darkness, the ship escaped.⁴

U.84 turned up next off Ushant where on January 12, at 0900, in 48° 28' N., 5° 35' W., she met the British S.S. *Auchencrag*, 3,916 tons, Plate to Cherbourg, and sank her with gunfire and a torpedo. The sea was rough and she towed the boat towards land; the stem piece of one of the boats carried away; the submarine let off a dozen rockets and apparently went off to find a ship to embark the crew, but finding none came back and took them all aboard. The next day, January 13, Walter Roehr stopped a Norwegian steamship the *Morild I* in 47° 50' N., 7° 55' W., put the crew of the *Auchencrag* on board and kept her in company to receive any more. The next day, January 13, at 9 a.m., she stopped the Spanish S.S. *Cosme*, Glasgow to Barcelona, and let her go. Another day passed. *U.84* proceeded northward and on January 15, at 3 p.m., in 49° 12' N., 8° 39' W., stopped the Danish S.S. *Omsk*,

¹ P was in 52° N., 13° W.; Q in 50° 30' N., 13° W. See H.S. 325/16, 328.

² The A.B.M.V. (War Warning) on January 6, ran: "Except vessels bound for English Channel through lettered rendezvous all homeward bound vessels are to make Fastnets Rock and hug coast to Tuskar," January 6, 2213, H.S. 347/506. No message direct to *Alexandrian* has been traced, but on January 8 the *Alexandrian* informed Valentia that she expected to arrive at Q on January 8 at 5 p.m. The signal to change to Q rendezvous was "Quagmire."

³ M.0491/17 in B. of T., January 16 1917.

⁴ T. 6167/17 in I.D. Vol. 629.

1,574 tons, from Leith to Genoa. A British s.v. *Kinpurney*, 1,944 tons was in sight, from Cardiff to South Africa; she had instructions from Cardiff to proceed along the Coast of Ireland to 15° W., but though the wind was fair preferred to take a short cut.¹ She was sent to the bottom with a torpedo and her crew were put aboard the *Morild I*, which after about 350 tons of her cargo of pitwood had been thrown overboard was released the next day, January 16,² and allowed to proceed to Cardiff.

U.84 went on to cruise off the south of Ireland. On January 17, at 1000, in 50° 49' N., 8° 25' W., she stopped the Swedish s.v. *Angelo*, 917 tons, in ballast, and let her proceed. She then seems to have proceeded towards the Skelligs where at 5 p.m., January 20, in 51° 50' N., 10° 52' W., she stopped the British S.S. *Neuquen*, 3,583 tons, Plate to Belfast and after she was abandoned sank her with a torpedo. A high swell was running and one of the boats with 18 men in it was never seen again. Another victim that day³ was the British S.S. *Bulgarian*, 2,515 tons, Cartagena to Liverpool. The heavy sea was too much for her boats. Twenty-three men and the master were lost and nine men picked up by *U.84* were taken prisoners to Germany. *U.84* proceeding north-about, reached the Bight safely on January 25. She had sunk six steamships and one sailing vessel, of 18,661 tons.

91. "U.59," Bay, January 5–February 3.—*U.59*, Baron v. Fireks, left the Bight on January 5, and proceeded by the Channel, where he was located by signal on January 7. On January 11, at 8.25 a.m., Q.14 was cruising off Ushant in 48° 43' N., 5° 32' W., proceeding to the north east at ten knots, when a shell pitched on the port beam.⁴ It was fired by *U.59*, but nothing more was seen of her. The next day, January 12, at midnight, she was located by directionals in the Bay and appeared next off Finisterre. There on January 13, at 8 p.m., in 43° 32' N., 9° 16' W., she met the Norwegian S.S. *Solvang*, 2,970 tons, and sank her with bombs. Two days later, January 15, at noon in 44° 15' N., 9° 16' W., she stopped the Spanish S.S. *Sardinero*, 2,170 tons, carrying coal to Vigo and at 3 p.m., the Danish S.S. *J. C. Jacobsen*, 1,225 tons, on the way from Lisbon to Copenhagen, and let them both go on. On January 16 at 2.45 p.m., in 45° 30' N., 8° W., she met the French s.v. *Brenn*, 1,948 tons, going from La Pallice to Taltal and sank her with bombs and gunfire. She took the mate and four hands on board, leaving the rest to reach land after a sojourn of three weary days in the boats. On the 17th as she cruised towards Ushant only one ship was seen—the Danish S.S. *Hans Maersk*, which she stopped, giving

¹ T.D. 3712 in I.D. Vol. 629.

² At 0930; submarine disappeared at 1600 in 50° 25' N. 7° 45' W.

³ Time uncertain. There was a steamer (the *Bulgarian*) north of the *Neuquen*, but in the German list of ships she comes before the *Neuquen*.

⁴ H.S. 647/97.

her the four men out of the *Brenn*. On January 18 at 2 a.m., in 46° 38' N., 5° 32' W., her search lights flared on to a Danish ship, the s.v. *Nathalia* from Rochefort to Leith with rubbish ballast, which she allowed to proceed. She then made right down into the angle of the Bay and on January 19, at 2.15 p.m., in 43° 45' N., 3° 15' W., 20 miles from the coast of Spain, met the Norwegian S.S. *Gaea*, 1,002 tons, from Bilbao to Newport, and sank her with gunfire and bombs, towing the boats to within sight of Piscadore Point. She was cruising for the next two days in the middle of the Bay where on January 22 at 4.50 p.m., in 46° 2' N., 4° 23' W., she chased the French S.S. *Guyane*.

On January 23, at 5 p.m., in 47° 5' N., 6° 47' W., she sank the Norwegian S.S. *Sardinia*,¹ 1,500 tons. Nothing more was heard of her and she was back on February 3. She had sunk three steamers and one sailing vessel making 7,420 tons, but had missed the Spanish trade which was hugging the north coast of Spain at the time.

92. "U.43," January 11-February 13, Bay.—U.43, Lieutenant-Commander Jürst, left the Bight for the Bay of Biscay on January 11, and going north-about on January 13 was off North Rona where she stopped the Swedish S.S. *Irma*. Six days later she was off the Fastnet and at 5 p.m., January 19, was seen for a minute or two by Q.15 in 51° N., 10° 14' W. By the 21st she was on the track from Finisterre to Ushant, and at 1300 in 47° 10' N., 6° 25' W., stopped the Danish S.S. *Magnus*, 1,296 tons, on the way from Tunis to Kastrup and let her go. A couple of hours later she found a bigger mark. This was the French S.S. *Amiral Troude*, 5,615 tons, which was sighted at 3.30 p.m. in 46° 53' N., 7° 17' W., on her way to Bordeaux. She was armed with a gun and after a two hours' exciting duel got away. Her S.O.S. reached London at 4.23 p.m., locating a submarine in the Bay. On went U.43 to the south and the next day, January 22, at 5.45 a.m. in 45° 21' N., 7° 30' W., fell in with another French ship the s.v. *Duc D'Aumale*, 1,944 tons, with grain from Bahia Blanca to Pauillac. The ship was sunk with bombs and U.43, after towing the boat towards land, put the crew on board a Norwegian S.S. *Storli* which landed them at Concubion. It was the practice of German submarines in this area to use a captured steamer to carry the neutral crews, and on January 23 at 6 a.m. in about 44° 30' N., 8° 30' W., U.43 captured the Norwegian S.S. *Donstad*, 698 tons, on her way from Portugal to France and used her for four days as an auxiliary. So far, however, as British ships were concerned her cruise was almost a complete failure. They had orders to keep clear of Finisterre,² and homeward-bound vessels had instructions to keep out to 14° W., nearly 200 miles west of U.43's sphere of activity.

¹ Etudes et Movements I.D. Vol. 726. No details in British records.

² No vessel to pass within 200 miles of Finisterre. Telegram January 7, also telegram, January 19, 0610, H.S. 350/720.

U.43 succeeded in capturing only one. At 10.30 a.m., January 23, in 44° 15' N., 9° W., she stopped the Norwegian S.S. *San Thelmo*¹ from Genoa and let her go. That afternoon the *Donstad* sighted the British S.S. *Jevington*, 2,474 tons, coming from Buenos Ayres to Rochefort. She had left Buenos Ayres on December 22, and as she had no wireless, her instructions were probably drawn up with the primary object of evading the *Moewe* in December rather than German submarines in January. She had received no war warnings, for, though in a system of independent sailings it was most important for home coming steamers to get the latest information she, like the majority of small cargo ships, was not fitted with wireless. It was overcast and drizzling when the *Jevington* sighted U.43 at 2.30 p.m., January 23, to the S.E. and she took the submarine at first for a fishing boat. At 3.40 p.m.² a periscope rose about four feet, 200 yards on the port bow and at the same instant a torpedo hit the ship, which was finally sunk by fire and bombs at 8 p.m. The crew were put aboard the Spanish S.S. *Leonara* which passed at 7.30 p.m. and were landed at Liverpool on January 27. The Master, Thomas Streeting, was taken prisoner and put on board the *Donstad*.³ A south-westerly gale was blowing up and for two days, January 24 and 25, U.43 lay to the east of Cape Estaca, (43° 47' N., 7° 44' W.) under the lee of land with a heavy S.S.W. sea running. The *Donstad* met her here on January 25 at 6 a.m. On the 26th the sea had gone down and U.43 cruised north of Cape Villano, 43° 10' N., 9° 13' W., and the next day, January 27, at 7 a.m. in 44° 15' N., 10° 4' W. sank the *Donstad* and took the crew on board the submarine. That afternoon at 4 p.m. in 43° 23' N., 9° 50' W., she captured the Norwegian S.S. *Fulton*, 1,034 tons, going from Huelva to Nantes with ore. The crews were quickly transferred to her and the *Fulton* proceeded towards Finisterre, where the prisoners were all put into the lifeboats and landed. The *Fulton* disappeared and was probably sunk and the next day, January 28, U.43 made a cast to the southward and on January 28 some 40 miles west of Finisterre sank the Portuguese s.v. *Foz do Douro*, of 1,677 tons. On January 30, she turned homeward and the next day, January 31, at 8 a.m. in 45° 45' N., 8° 30' W., met the Norwegian S.S. *Rigel*, 2,761 tons, going from Newport, Mon., with coal to Lisbon. The crew were taken on board and the ship sunk with bombs. Her sailing instructions are not known. She was in the Bay though instructions for British and Allied vessels directed ships to keep well out and approach the coast at right angles at night.⁴

¹ Report reached London, January 26 1917, 2100.

² In 44° 8' N., 9° W.

³ He was subsequently on account of an injured leg allowed to land with the crew of the *Fulton* in Spain. I.D. Vol. 630.

⁴ Memo. No. 14 to S.I.O., January 19 1917, 1610 in Vol. "Western Trade Ocean I." T.D. papers.